

Figure 1 – page 1

```
aagggtaggggagaaaatttctatgtatgttagttttttatcttaaaaaattagctttt
1 -----+-----+-----+-----+-----+-----+ 60
ttcccatcccctcttttaagatacatacaatcaaaaaatagaatttttttaatcgaaaa

gtgaggctgggcgtggtggctcacgcctgtaatcccagcactttgggaggccgaggcggg
61 -----+-----+-----+-----+-----+-----+ 120
cactccgaccgcaccaccgagtgcggaacattagggctcgtgaaaccctccggctccgccc

cagatcacgaggtctggagattgagaccgtcctggctaacacagtgaaaccccgctctcta
121 -----+-----+-----+-----+-----+-----+ 180
gtctagtgtctccagacctctaactctggcaggaccgattgtgtcactttggggcagagat

ctaaaaatacaaaaaattagctgggcgtggtggcgggcgccctgtagtcccagctattcgg
181 -----+-----+-----+-----+-----+-----+ 240
gatttttatgttttttaatcgaccgcaccaccgcccgcggacatcagggctcgataagcc

gaggtgaggcagtagaatggcatgaacccgggaggcggagcttgacgtgagctgagatcc
241 -----+-----+-----+-----+-----+-----+ 300
ctccactcgtcatcttaccgtacttgggcccctccgcctcgaacgtcactcgactctagg

tgccactgcactccagcctgggtgacagagcgagactctgtctcaaaaaataaaaaagc
301 -----+-----+-----+-----+-----+-----+ 360
acgggtgacgtgaggtcggacccactgtctcgctctgagacagagtttttttattttttcg

ttttgccaatatttaaaatatgacttgatgtgagagtcttaatttcttctacgcagtata
361 -----+-----+-----+-----+-----+-----+ 420
aaaacggttataaattttatactgaactacactctcagaattaaagaagatgcgtcatat

cagatatatagcattcctgtcatttagcaggggtgatagtaaaacaaaaaaacaaaaaac
421 -----+-----+-----+-----+-----+-----+ 480
gtctatatatcgtaaggacagtaaatcgctcccactatcattttgtttttttgttttttg

cccacaaaacctgtgggtgaggcactgaccaatcagaatgattgatggtcacagctctggtc
481 -----+-----+-----+-----+-----+-----+ 540
gggtgttttggaaccactccgtgactggtagtcttactaactaccagtgtcagaccag

caaaattagccccacaccagacaccatggaggaaaagtgagagtaactcaatttaagtt
541 -----+-----+-----+-----+-----+-----+ 600
gttttaatcgggggtgtggtctgtggtacctcttttctactctcattgagttaaattcaa

gacagtgggtttgttttattgcagtttatctgtgtgtgaataggtagatttaaggattgtt
601 -----+-----+-----+-----+-----+-----+ 660
ctgtcaccaaacaaaataacgtcaaatagacacacacttatccatctaaattcctaacia

ggccaggtgtggtggctcacacctggaatcccagcacttttaggaggcagaggcaggcgg
661 -----+-----+-----+-----+-----+-----+ 720
ccgggtccacaccaccgagtggtgaccttagggctcgtgaaaatcctccgtctccgtccgcc

atcacttgagatcaggagttcgagacagcctggccaacatgggtgaaaccctgtctctact
721 -----+-----+-----+-----+-----+-----+ 780
tagtgaactctagtcctcaagctctgtcggaccgggtgtaccactttgggacagagatga
```

Figure 1 – page 2

```

aaaaatacaaattagccaggcatggtagtgcatgcctgtaattccagctacttgggaggg
781 -----+-----+-----+-----+-----+-----+-----+ 840
tttttatgtttaatcgggtccgtaccatcacgtacggacattaaggtcgatgaaccctcgg

tgaggcaggagaatcgcttgaaccggggaggcagaggttgacgtgagccgagattgcgcc
841 -----+-----+-----+-----+-----+-----+-----+ 900
actccgtcctcttagcgaacttgccccctccgtctccaacgtcactcggctctaacgcgg

attgcgctccagcttgggcaacaagagcgaaactctgtctcaaaaaaaaaaaaaaaaaaa
901 -----+-----+-----+-----+-----+-----+-----+ 960
taacgcgaggtcgaaccctgtgtctcgctttgagacagagttttttttttttttttttt

aaggattgtcaaattgattcttgaagtaaaccataaattaaagataacaaaacaagcaca
961 -----+-----+-----+-----+-----+-----+-----+ 1020
ttcctaacagtttactaagaacattcatttggtatttaatttctattgtttgttcgtgt

agagaaaaatgatacagccctttccttgacctctcactaatctgcccttttaagataaag
1021 -----+-----+-----+-----+-----+-----+-----+ 1080
tctctttttactatgtcgggaaggaactggagagtgattagacgggaaaattctatttc

atatcattttaactatgagaaggtaactgcttttctaaaggagctcattttatgaagata
1081 -----+-----+-----+-----+-----+-----+-----+ 1140
tatagtaaaattgatactcttccattgacgaaaagatttcctcgagtaaaatacttctat

atattttgaaaactaatatttaggagtggtttcaccattctatgattgcccaaaaactaa
1141 -----+-----+-----+-----+-----+-----+-----+ 1200
tataaaacttttgattataaatcctcacaaaagtggtaagataactaacggggttttgatt

gtgatacttataaaaaacactaagtttttatacatatactagttggaaatattccaagctgt
1201 -----+-----+-----+-----+-----+-----+-----+ 1260
cactatgaatatttttgtgattcaaaatatgtatatgatcaacctttataagggttcgaca

agaaatattccaacaaggattatttccatgggggttaatttggttaaaaatataaaagacac
1261 -----+-----+-----+-----+-----+-----+-----+ 1320
tctttataagggttggttcctaataaagggtaccccaattaaacaatttttatattttctgtg

cacctttctattaatttgaacaactaattgacatcagagaagatgaaaatttactagct
1321 -----+-----+-----+-----+-----+-----+-----+ 1380
gtggaaagataattaacattgttgattaactgtagtctcttctacttttaaatgatcga

ggatatcaaccagattttttgtattattggcaactgagattgaaaaatgaatgaaagagtc
1381 -----+-----+-----+-----+-----+-----+-----+ 1440
cctatagttgggtctaaaaacataataaccggtgactctaactttttacttactttctcag

tacttcatccatttagatatcctttcacttgatctccctgtttccttactgtcctaagt
1441 -----+-----+-----+-----+-----+-----+-----+ 1500
atgaagtaggtaaatctataggaaagtgaacctagagggacaaaggaatgacaggattac

aatagaaatgatcggttacaagctgggcatgggtggcttgacactgtagtcccagctactgg
1501 -----+-----+-----+-----+-----+-----+-----+ 1560
ttatctttactagcaatgttcgacccgtaccaccgaacgtggacatcagggtcgatgacc

```

Figure 1 – page 3

```

ggaggctgaggagggaggatggcttgaggccagagttgaaggatccagagatgattgcgc
1561 -----+-----+-----+-----+-----+-----+ 1620
cctccgactcctccctcctaccgaactccggtctcaacttcctaggtctctactaacgcg

agtgacgctaagcttggggccacagagttgagaccctgtctctaaaaattttttttaatt
1621 -----+-----+-----+-----+-----+-----+ 1680
tcactgcgattcgaaccggtgtctcaactctgggacagagatttttaaaaaaaaattaa

taaattataaaaagagaaatgcttggttacaaccacaaagggaaacaagatatacacatat
1681 -----+-----+-----+-----+-----+-----+ 1740
atttaatatTTTTTctctttacgaacaatggttggtgtttccctttgttctatatgtgtata

aattgtggaagtaaaaaataaataatttaaaaaatacttttgggtgctcgcttcggcagcac
1741 -----+-----+-----+-----+-----+-----+ 1800
ttaacaccttcattttttattttattaaatttttatgaaaaccacgagcgaagccgtcgtg

atatagttggaatgatagagaagatttgcatggccctgcgcaagatgacatacaaattc
1801 -----+-----+-----+-----+-----+-----+ 1860
tatatcaaccttactatctcttctaaacgtaccggggacgcgttctactgtatgtttaag

gtgaagtgttccatatttaaaaaaacaataacttttgggcctggcactgtggtcat
1861 -----+-----+-----+-----+-----+-----+ 1920
cacttcacaaggtataaatttttttgttttttatgaaaaccggacgtgacaccgagta

gcctgtaatccaaacactttgggaggctgaggcgggaggattgcttgaaccaggagttg
1921 -----+-----+-----+-----+-----+-----+ 1980
cggacattaggtttgtgaaaccctccgactccgccgcctaacgaacttgggtcctcaac

gagaccagcctggacaacatggtgaaatcccgctctctataaaaaaatacaaaaattaacc
1981 -----+-----+-----+-----+-----+-----+ 2040
ctctgggtcggacctgttgtagccactttagggcagagatatTTTTTTtatgtttttaattgg

aggtgtggtggtgcacgcctgtaatccaaggtacttgggaggctgaggcgggaggatcgc
2041 -----+-----+-----+-----+-----+-----+ 2100
tccacaccaccacgtgaggacattaggttccatgaaccctccgactccgccctcctagcg

ttgagccaggaggttgggcctgggtaacagagaccgtctcaaaaaatttaaaaattaaa
2101 -----+-----+-----+-----+-----+-----+ 2160
aactcggtcctccaaccggacccattgtctctggcagagtttttttaatttttaattt

aaaaaaactttctgcaagatgaagtgacaatacctggaaaatacatgtgacttgaccaa
2161 -----+-----+-----+-----+-----+-----+ 2220
tttttttgaaagacgttctacttctactgttatggaccttttatgtactgaactgggtt
(-676)
aattactataggtgaaaataaatttagcaaagttgctttcctaatacaaccctaaatag
2221 -----+-----+-----+-----+-----+-----+ 2280
ttaatgatatccactttttatttaaatcggttcaacgaaaggatttatgttgggttttatc

actgggaacagctacatactgttaatggttcctctatgtgacattctagaaaaggcaga
2281 -----+-----+-----+-----+-----+-----+ 2340
tgacccttgtcgatgtatgacaattaccaaggagatacactgtaagatctttccgtct

```

Figure 1 – page 4

actatagggagggaaaacatctgtggttgcccaggagctaggggtgggaagaggggaattt
2341 -----+-----+-----+-----+-----+-----+-----+ 2400
tgatatccctccctttttagacaccaacgggtcctcgatccccacccttctcccttaa
(-542)
actacaaagagcagcaagaaacttgtgggcccagagctattttgggtctccgttttggga
2401 -----+-----+-----+-----+-----+-----+ 2460
tgatgtttctccgtgcttctttgaacaccgggtctcgataaaaccagaggcaaaaccact
(-477)
tgtatatacgttttgccagagttcacagaactgcacactgaagaaagatggatttcacgga
2461 -----+-----+-----+-----+-----+-----+ 2520
acatatatgcaaacgggtctcaagtgtcttgacgtgtgacttctttctacctaagtgct
(-420)
atgtgaattatatctcaacaaacttgacttcaaaaaacagatcgagaaaagatgattcta
2521 -----+-----+-----+-----+-----+-----+ 2580
taccttaatatagagttgtttgaactgaagtttttgtctagctcttttctactaagat
(-339)
ttcccaaaaagggggaggggggaagatcattatataggtgagtggtcatttaaatacagag
2581 -----+-----+-----+-----+-----+-----+ 2640
aagggtttttcccccctcccccttctagtaatatccactcacaagtaaatttagtctc

tacgagatttatccgtgaaaatcgagtgaggcgaacaagggggatgctgataccgacct
2641 -----+-----+-----+-----+-----+-----+ 2700
atgctctaaataggcacttttagcgctcacctcgcttgttccccctacgactatggctgga

cctggttggaagcctgtagagcagcgcggtgacagtggaacagcgggtcaggcgggtgg
2701 -----+-----+-----+-----+-----+-----+ 2760
ggaccaacctttcggacatctcgtcgcgcctactgtcaccttgtcgccagtcggccacc

gcgcctgagcgaggggctagagcgggatgggcgggcgagcaagcctgccagcctgggcg
2761 -----+-----+-----+-----+-----+-----+ 2820
cgcgactcgctccccgatctcgccctaccgccccgcctcgcttcggacgggtcggaccgc
(-116) (-114)
gggcctcgccacaggagctcgctcggggagcccgccgtcctgagtcgcaggccgaggaga
2821 -----+-----+-----+-----+-----+-----+ 2880
cccgagccgtgtcctcgaccgacgcctcgggcggcaggactcagcgtccggctcctct

cagtgagtgcgcgccctgagtcgcaggccgaggagacagtgagtgcgcgccctgagtcgc
2881 -----+-----+-----+-----+-----+-----+ 2940
gtcactcacgcgcgggactcagcgtccggctcctctgtcactcacgcgcgggactcagcg

aggccgaggagacagtgagtgcgcgccctgggcgccccgccccagccccagccccctcc
2941 -----+-----+-----+-----+-----+-----+ 3000
tccggctcctctgtcactcacgcgcgggacccgcggggctcgggggtcgggggtcggggaagg

ctgggcccccgcaaggcggaacgcgagcgccctccccgagctgtgtctcgagaccttg
3001 -----+-----+-----+-----+-----+-----+ 3060
gacccgggggcttccgccccttgcgctcgcgagggggctcgacacagagctctggaac

tctccccctcacccctcgggccgctgcctgcctttactggccccctccctcatgcccgt
3061 -----+-----+-----+-----+-----+-----+ 3120
aggaggggagtggggagccgggacgggacgggaaatgaccgggggagggagtaggggca

Exon 1

Figure 1 – page 5

Exon 2

3121 ccctcagcaccctctcctttcaactaactttcccgctcccgacagtggtgcacttcgtg 3180
-----+-----+-----+-----+-----+-----+
gggagtcgtgggagaggaaagttgattgaaagggcgagggctgtcaccgacgtgaagcac

M A A L R D -

3181 acgctgagatacagaaggacgtgcaggtgagagctgtagggcctggaatggcccaagtgg 3240
-----+-----+-----+-----+-----+-----+
tgcgactctatgtcttcctgcacgtccactctcgacatcccggaccttaccgggttcacc

A E I Q K D V Q

3241 agcctaggctaataatggaagtctggcctggcccgacccctgtccccgggactcctggagtc 3300
-----+-----+-----+-----+-----+-----+
tcggatccgattaccttcagaccggaccgggctgggacagggggcctgaggacctcag

3301 ggggtagggcaggggtctaggcttcgacctttccaggaactgaggtcggccaagtggagg 3360
-----+-----+-----+-----+-----+-----+
ccccatcccgtcccagatccgaagctggaaaggtcccttgactccagccggttcacctcc

I2 (-75) I2 (-47) C-INSERTION

3361 tggaggtggtgacggagccctcgcgctgcagtcacagctcttctccctctctacctctca 3420
-----+-----+-----+-----+-----+-----+
acctccaccactgcctcgggagcgcgacgtcagtgctcgagaagaggagagatggggagt

I2 (-10)

Exon 3

3421 ctccactgtgggagctgggtcagacctactacgggcaggtgctgaagagatcggcagac 3480
-----+-----+-----+-----+-----+-----+
gaggtgacaccctgcgaccagtcctggatgatgccggtccacgacttctctagccgtctg

T Y Y G Q V L K R S A D -

3481 ctccagaccaacggctgtgtcaccacagccaggccggtccccaagcacatccgggaagcc 3540
-----+-----+-----+-----+-----+-----+
gaggtctggttgccgacacagtggtgtcggtccggccaggggttcgtgtaggcccttcgg

L Q T N G C V T T A R P V P K H I R E A -

3541 ttgcaaaatgtacacgaagaagtagccctaaggtagagtgcctgtgctgtccccaggaa 3600
-----+-----+-----+-----+-----+-----+
aacgttttacatgtgcttcttcacggttcacggttcacggttcacggttcacggttcacg

L Q N V H E E V A L R

3601 gaccccaaacagcagttttccaaaagataatgatgcaggtcactaggggaattaaccgct 3660
-----+-----+-----+-----+-----+-----+
ctgggggttgcgtcaaaagggttttctattactacgtccagtgatcccttaattgggca

3661 agccaccaacccatcagcttgcttgccttgccttgccttgccttgccttgccttgccttgc 3720
-----+-----+-----+-----+-----+-----+
tcgggtggttgggtagtcgaacggaacagataacatttttaggatttagagtcgtgggtag

Figure 1 – page 6

```

atcttactgctctaagaacctccgatgagctctgggcgcgccagtgagcctgtagtcccaa
3721 -----+-----+-----+-----+-----+-----+ 3780
tagaatgacgagattcttggaggctactcagaccgcgcggctcactcggacatcaggggtt

gtgcttgggaggctgaggcagaggatcgcgtagccccaagttacaggctgtagtgctgc
3781 -----+-----+-----+-----+-----+ 3840
cacgaacctccgactccgtctcctagcgcactcgggtcttcaatgtccgacatcacacg

gatccgggatgtgaatagccactgcactccagcttgggtcaacatagccagatgcatctct
3841 -----+-----+-----+-----+-----+ 3900
ctaggccctacacttatcgggtgacgtgaggtcgaaccagttgtatcgggtctacgtagaga

aaaataaatgctacttttaaaaaattgcctaaaaaaaagaacctccagcgtgaacactc
3901 -----+-----+-----+-----+-----+ 3960
ttttattttacgcatgaaatttttttaacggatttttttcttggaggctgcacttgtag

tgtagtccttaccatgctcacagaatacagtcacactcactggatctgccattcaagat
3961 -----+-----+-----+-----+-----+ 4020
acatcagggatgggtacgagtgcttattgtcagtgtagtgacctagacggtaagttcta

atgcgcagttcagcaccactaatcaaccttggcccttttgacccttcccttcctcactc
4021 -----+-----+-----+-----+-----+ 4080
tacgctcaagtctggtgattagttggaaccgggaaaactgggaagggaaggagtgcg

catcagcactgcctgccagccggcagtcaccaatttgaaggctcttcccttttcttttt
4081 -----+-----+-----+-----+-----+ 4140
gtagtcgtgacggacgggtcgccgtcagtggttaaacccttcagaagggaagaaaaaa

ccttcccaacctgcgcatccagcaccacgtgctgtcccacactactgcatggagccttc
4141 -----+-----+-----+-----+-----+ 4200
ggaagggttgggacgcgtaggtcgtggtgcgacgacagggtggatgacgtacctcggaag

tctaattccttgagcggcctcttcccaaaactgccacagcactctgtcactcgggtctgtcc
4201 -----+-----+-----+-----+-----+ 4260
agattaggaactcgccggagaaggggtttgacgggtgctgtagacagtgcagcagacagg

gtaaatcacgggaagtgttttctgtgcacgatgttttatctgcctctcaaatacaccta
4261 -----+-----+-----+-----+-----+ 4320
catttagtgcccttcacaaaagacacgtgctacaaaatagagcggagagtttatgtggat

cgcgccgggggagcgggtggctcacgtccgtcatcccagaacttgggaggccaaggcaggta
4321 -----+-----+-----+-----+-----+ 4380
gcgccgccccctcgccaccgagtgagggcagtaggggtcttgaaccctccgggtccgtccat

gatcacttgaggctcagaagttcaagaccgacctgggtcaacatagtgaaaccctgtctcta
4381 -----+-----+-----+-----+-----+ 4440
ctagtgaactccagtccttcaagttctgggtggaccagttgtatcactttgggacagagat

ctgaaaatacaaaaattagctgggtgtagtggggcacgcctgtagtcccagctacttggg
4441 -----+-----+-----+-----+-----+ 4500
gacttttatgtttttaatcgaccacatcaccccgctgcggacatcaggggtcgatgaacc

```

Figure 1 – page 7

```
aggctgagggaggagaatcacttgaacgtggaaggcggaggtcgcagtgagcggagattg
4501 -----+-----+-----+-----+-----+-----+ 4560
tccgactccctcctcttagtgaacttgcaccttccgcctccagcgtcactcgctcctaac

tgccactgcactccagcctgggcaacagagaaaaactcagtcaaaacaaaacaaaacaaa
4561 -----+-----+-----+-----+-----+-----+ 4620
acggtgacgtgaggtcggacccgttgtctctttttgagtcagttttgttttgtttgttt

aaaaaggccgggggtggtggcttatgtctgtaatcccagcactttgggaggccgaggcgg
4621 -----+-----+-----+-----+-----+-----+ 4680
tttttccggcccccaccaccgaatacagacattagggtcgtgaaaccctccggctccgcc

gaggatcacgaggccaggagatcgagaccatcctggctatcatggtgaaaccccgctctct
4681 -----+-----+-----+-----+-----+-----+ 4740
ctcctagtgtccggtcctctagctctggttaggaccgatagtaccactttggggcagaga

actaaaaatacaaaaaatattatccgggtgtggcggcacgcgcctgtagttccggctgctg
4741 -----+-----+-----+-----+-----+-----+ 4800
tgatttttatgtttttataataggcccacaccgccgtgcgcgagacatcaaggccgacgac

gggaggctgaggcaggagaacggcgtgaacccgggaggcggagcttgacgtgagctgagt
4801 -----+-----+-----+-----+-----+-----+ 4860
ccctccgactccgtcctcttgccgcacttgggcctccgcctcgaacgtcactcgactca

tcgagccactgcactccagcctgggtgacagggaagactccgtctcaaaaaaaaaaaaaa
4861 -----+-----+-----+-----+-----+-----+ 4920
agctcggtgacgtgaggtcggacccactgtcccgttctgaggcagagttttttttttttt

aaaaaaaaaaaaaaaaaaaaattagccaggagtggtggcaggcgctcgtagtcctagctact
4921 -----+-----+-----+-----+-----+-----+ 4980
tttttttttttttttttttaatcggtcctcaccaccgtccgcgagcatcaggatcgatga

cgggaggctgaggtaggagaatggtgtcaacccgggaggcggagcttgcggtgagctgag
4981 -----+-----+-----+-----+-----+-----+ 5040
gccctccgactccatcctcttaccacagttgggccctccgcctcgaacgccactcgactc

atcgcgccactgcactccagcctgggcgacagagcgagactccgtctcaacaaaaacaaa
5041 -----+-----+-----+-----+-----+-----+ 5100
tagcgcggtgacgtgaggtcggacccgctgtctcgctctgaggcagagtttgttttgttt

acaaaacaaaacaaaacaaatcaaaacaaaaaacgcctatgggacagaaaccttacattt
5101 -----+-----+-----+-----+-----+-----+ 5160
tgttttgtttgtttgttttagttttgttttttgcggataccctgtctttggaatgtaaa

tttctcaataactagcgcagtcctgggcctgaattagaagctcagctaataatgataaatg
5161 -----+-----+-----+-----+-----+-----+ 5220
aaaggagttattgatcgcgtcaggacccggacttaatcttcgagtcgattactaatttac

tatttattcaacacattattttattttattttattttttgagacggagtcctcactctg
5221 -----+-----+-----+-----+-----+-----+ 5280
ataaataagttgtgtaataaaaataaaaataaaaataaaaactctgcctcagagttagac
```

Figure 1 – page 8

tcccttaggctggagtgagtgaggcgccatctctgctcactgcaacctctgcctcctgggt
 5281 -----+-----+-----+-----+-----+-----+-----+ 5340
 agggaatccgacctcacgtcacgcggtagagacgagtgacgttgagacggaggacca
 tcaagccattctcctgcctcagcctcccgaggagctgggattacaggtacctgctaccgt
 5341 -----+-----+-----+-----+-----+-----+-----+ 5400
 agttcggtaagaggacggagtcggagggctcctcgaccctaattgtccatggacgatggca
 gccagctgatttttttggtatttttagtagagacagggtttcactatggtggccaggctg
 5401 -----+-----+-----+-----+-----+-----+-----+ 5460
 cgggtcgactaaaaaaccataaaaaatcatctctgtcccaaagtatacaaccgggtccgac
 gtctccaactccttgctcaagcgatccgcctgccttgacctcccaaagtgtgtgatta
 5461 -----+-----+-----+-----+-----+-----+-----+ 5520
 cagaggttgaggaacggagttcgctaggcggacggaactggaggggtttcacgacactaat
 taggcgtgagccaccgcgccagcctgaacacattatttttagatggcttatgaagtctta
 5521 -----+-----+-----+-----+-----+-----+-----+ 5580
 atccgcactcgggtggcgcggtcgacttgtgtaataaaatctaccgaatacttcagaat
 gtgcctagcacatgcccacaataactgtggtaaaagcagatacagtcaccagccttcatggg
 5581 -----+-----+-----+-----+-----+-----+-----+ 5640
 cacggatcgtgtacgggttggtatgacaccatttcgtctatgtcagggtcggaagtaccc
 tgtccagttcagtgagactaaacatcagaagtatgagtgaatgatgcaagaaagaagga
 5641 -----+-----+-----+-----+-----+-----+-----+ 5700
 acaggtcaagtcacctctgatttgtagtcttcatactcacttactacgttctttcttct
 aggaaggaaggaacggagggaggaggaggagggaagtatgtataagatttagtggttt
 5701 -----+-----+-----+-----+-----+-----+-----+ 5760
 tcttctcttcttgcctccctccctccctccctccctccctccatacatattctaaatcaccaa
 I3 (-18)
 catgtcttacagtcctccagggaaaaaataatgtgttttccatttccagatattatggctg
 5761 -----+-----+-----+-----+-----+-----+-----+ 5820
 gtacagaatgtcagaggtcccttttttatacacaaaaggtaaagggtctataataccgac
 Y Y G C -
 tggctctggtgatccctgagcatctagaaaactgctggattttggatctgggtagtggag
 5821 -----+-----+-----+-----+-----+-----+-----+ 5880
 accagaccactagggactcgtagatcttttgacgacctaaaacctagaccatcaccttc
 G L V I P E H L E N C W I L D L G S G S -
 tggcagagattgctatgtacttagccagctgggtgggtgaaaaaggacacgtgactggaat
 5881 -----+-----+-----+-----+-----+-----+-----+ 5940
 accgtctctaacgatacatgaatcggtcgaccaaccactttttcctgtgcactgacctta
 G R D C Y V L S Q L V G E K G H V T G I -

Exon 4

Figure 1 – page 9

5941 agacatgaccaaggccagggtgaggcatgatttgaagacaaggagaaaaagattctcaa 6000
-----+-----+-----+-----+-----+
tctgtactggtttccgggtccactccgtactaaaccttctgttctcttttttctaagagtt

D M T K G Q

6001 aagcattatttgaaaaataaagttgttttcttcgtggctcttcaaggataatttaagaaa 6060
-----+-----+-----+-----+-----+
ttcgtataaaacttttttatttcaacaaaagaagcaccgagaagttcctattaaattcttt

gcttctagtttagcaatgctcatttgtgccactagtgttctctgtcttggaaactgataac
6061 -----+-----+-----+-----+-----+ 6120
cgaagatcaatcggttacgagtaaacacgggtgatcacgaaggacagaacctttgactattg
I4 (217)
ttgaacaattaggggttcttctggggaacacaagagtcggaggtttgctctgatgatgaa
6121 -----+-----+-----+-----+-----+ 6180
aacttggttaatccccaagaagaccgcttgtgttctcagcctccaaacgagactatactt

tactgtgacgatagagtggtgactttgatctttcccttcttctgctgccatctatcctgaaaga
6181 -----+-----+-----+-----+-----+ 6240
atagcactgctatctcacctgaaactagaaaggaagaacgacggtagataggactttct

ttttgttattgaatgaggagtttattcaagccaaactgcacgggcagcagggagtttatg
6241 -----+-----+-----+-----+-----+ 6300
aaaacaataacttactcctcaataagttcggttgacgtgccgctcgtccctcaatac
I4 (365)
tcccaggttgtagtatatcctacgtgtccacaggaatcttgtatgtttatccaaaataat
6301 -----+-----+-----+-----+-----+ 6360
agggtccaacatcatataggatgcacaggtgtccttagaacatacaaataggttttatta
I4 (414)
ctaggggaagtatttctgttagtgataggaaattttttaggaaaaagttgtgtatttttt
6361 -----+-----+-----+-----+-----+ 6420
gatcccttcatataagacaatcactatccttttaaaatcctttttcaacacataaaaaa
I4 (467)
tcaaaatgttatcaaaactatatttttcttacttttaggtggaagtggctgaaaagtatct
6421 -----+-----+-----+-----+-----+ 6480
agttttacaatagttttgatataaaaagaatgaaatccaccttcaccgacttttcataga

V E V A E K Y L -

tgactatcacatggaaaaatatggcttccaggcatctaattgtgacttttattcatggcta
6481 -----+-----+-----+-----+-----+ 6540
actgatagtgtacctttttataccgaaggtccgtagattacactgaaaataagtaccgat

D Y H M E K Y G F Q A S N V T F I H G Y -

cattgagaagttgggagaggctggaatcaagaatgagagccatgatattgttgtgtaggt
6541 -----+-----+-----+-----+-----+ 6600
gtaactcttcaaccctctccgaccttagttcttactctcgttactataacaacacatcca

I E K L G E A G I K N E S H D I V V

Exon 5

Figure 1 – page 10

```
ctatattcttactgttatgactatagcccattttctttattattattattattattg
6601 -----+-----+-----+-----+-----+-----+ 6660
gatataagaatgacaatactgatatcgggtaaaagaaataataataataataaac

agatggactctcgctctgtcaccaggccagagtgcagtggcccaatgtcagctcacgat
6661 -----+-----+-----+-----+-----+-----+ 6720
tctacctgagagcgagacagtggggtccggtctcacgtcacgggttacagtcgagtgcta

aacctctgcctcccgggttcaactgattctcttgcctcagcctctcaagtagctgggatt
6721 -----+-----+-----+-----+-----+-----+ 6780
ttggagacggagggcccaagttgactaagagaacggagtcggagagttcatcgaccctaa

ataggcacacgctaccacatccagctaattttttaaatcttcttttagtagagacaggg
6781 -----+-----+-----+-----+-----+-----+ 6840
tatccgtgtgcatgggtgttaggtcgattaaaaaatttagaagaaaatcatctctgtcca

ttcaccatgttggccaggttggtctcaaactcctgatctcaggtgatccaccgcttcca
6841 -----+-----+-----+-----+-----+-----+ 6900
aagtgggtacaaccggtccgaccagagtttgaggactagagtcactaggtgggcgaaggt

cctcccaaagtgtctgggattacaggtgtgaggcactgtgctcagccctcatttcctttg
6901 -----+-----+-----+-----+-----+-----+ 6960
ggaggggtttcacgaccctaattgtccacactccgtgacacgagtcgggagtaaaggaaaac

aacacagagatgtcactattactgtttgtgaattgactctcatttaggggtgttaaacta
6961 -----+-----+-----+-----+-----+-----+ 7020
ttgtgtctctacagtataatgacaaacgacttaactgagagtaaataccacaatttgat

aacttagcatggcttactaatgggagagagctgggttgagctgctggagctcaccagcag
7021 -----+-----+-----+-----+-----+-----+ 7080
ttgaatcgtaccgaatgattaccctctctcgaccaaactcgacgacctcgagtggctcgtc

cagaacacaccagaccaagaggggaacttacttgaaacttaaccacaaaccaatgaaccca
7081 -----+-----+-----+-----+-----+-----+ 7140
gtcttgtgtgggtctgggttctcccttgaaacttgaaattgggtgttggttacttgggt

aaagaccagcaggaccactaagtttgcctacaatacatgctgacctgtatctttcata
7141 -----+-----+-----+-----+-----+-----+ 7200
tttctgggtcgtcctgggtgattcaaacgaggatgttatgtacgactggacatagaaagtat

atattttcatggtaaattataggattctatttcctttttccctcaagttgttattgtca
7201 -----+-----+-----+-----+-----+-----+ 7260
tataaaagtaccattttaatatcctaagataaaggaaaaaggagttcaacaataacagt

aatcatgcccaagtgcagctgcctttgaggaacatagcctgtttacgtgaagcataaga
7261 -----+-----+-----+-----+-----+-----+ 7320
ttagtacgggttactgtgcagcgaaactccttgatcgacaaatgcacttcgtattct

aatgccttgtgccggccaggtgcggtgggtcacgcctataatcccagcattttgggaggg
7321 -----+-----+-----+-----+-----+-----+ 7380
ttacggaacacggccggtccacgccaccgagtcgggatattagggtcgtaaaaccctccg
```

Figure 1 – page 11

```

cgaggcaggtggatcacgaggtcaggaattccagaccagcttgaacaacatggcgaaacc
7381 -----+-----+-----+-----+-----+-----+ 7440
gctccgtccacctagtgtcctcagtccttaaggtctgggtcgaacttgttgtagcgtttgg

ccgtctctactaaaaatacaaaaattagctgggtgtgggtggcacatgcctgtaatcccag
7441 -----+-----+-----+-----+-----+-----+ 7500
ggcagagatgatTTTTATGTTTTTaatcgaccacaccacgtgtacggacattagggtc

ctatttaggaggtgaggcaggagaatcacttgaaccgggaggcggaggttgcaatgag
7501 -----+-----+-----+-----+-----+-----+ 7560
gataaatcctccgactccgtcctcttagtgaacttgggccctccgctccaacgttactc

ccgagattgcgccattgtactccagcctgggcaacaggagtgaacatcctctcgggaaa
7561 -----+-----+-----+-----+-----+-----+ 7620
ggctctaacgcggtaacatgaggtcggaccggtgtcctcactttgtaggagagcccttt

aaaaaaaaaagaaagaaatgccttgtgcagtaggcattctggctctgaggtttcatcttgtt
7621 -----+-----+-----+-----+-----+-----+ 7680
ttttttttttctttctttacggaacacgtcatccgtagaccagactccaaagtagaacia

acatggtgaacatcaggacagaaacaagtaagaatcatgcctgatgttattttctgcaca
7681 -----+-----+-----+-----+-----+-----+ 7740
tgtaccacttgtagtctcttctttgttcattcttagtacggactacaataaaagacgtgt

ttcaaaacttgctaacaattttattgagattttaagcactctgtctctgatcttggggaaaa
7741 -----+-----+-----+-----+-----+-----+ 7800
aagtttgaacgattgttaaataactctaaaattcgtgagacagagactagaaccctttt

gcttagttgaaggcattagaaagagaggaggcggtgaagaatggggtagctttgaca
7801 -----+-----+-----+-----+-----+-----+ 7860
cgaatcaacttccgtaatctttctctcctccctccgccattcttaccatcgaaactgt

gaacggtgggaaccacctttagggtctgaaaggatttgcagatctctgagtgttgtaag
7861 -----+-----+-----+-----+-----+-----+ 7920
cttgccacccttgggtggaatcccagactttcctaaacgtctagagactcacaacacttc

atttgctcgacatttcatctgttctcttttagatcaaactgtgttattaaccttgtgcct
7921 -----+-----+-----+-----+-----+-----+ 7980
taaacgagctgtaaagtagacaagagaaaatctagtttgacacaataattggaacacgga

                                     S N C V I N L V P -
                                     517
gataaacaacaagtgtctcaggaggcatatcggggtgtgaaggtaggaggagagtgaga
7981 -----+-----+-----+-----+-----+-----+ 8040
ctatttgttgttcacgaagtcctccgtatagccacgacttccactcctcctcactct

D K Q Q V L Q E A Y (R) V L K
                                     I6 (56)
taaattatctttgaacatcagtaagagctgatgggttaagtcttgtttgttcccccttga
8041 -----+-----+-----+-----+-----+-----+ 8100
atttaatagaaacttgtagtcattctcgcactaccaattcagaacaaacaagggggaact

```

Exon 6

Figure 1 – page 12

actaagagctcaaactctcttaatttatccattaaatgaataaggggtggcaaaaggggg
8101 -----+-----+-----+-----+-----+-----+ 8160
tgattctcgagtttgagagaattaaataggtatttacttattccccaccgttttcccc
aaggggcaggaataccccggatatggattactttccctcttaggttgcaaaaggtagtaa
8161 -----+-----+-----+-----+-----+-----+ 8220
ttccccgtccttatggggcctatacctaataaggggagaatccaacgttttccatcatt
atccgaggtgacagttgtcactgaatgtgttaaggattttgctttcttgactgtctctcc
8221 -----+-----+-----+-----+-----+-----+ 8280
taggctccactgtcaacagtgacttacacaattccataaacgaaagaactgacagagagg
tatttgctgctgtacatgatcctagaagagcatctgtggagctataggaatctttgact
8281 -----+-----+-----+-----+-----+-----+ 8340
ataaacgacgacatgtactaggatcttctcgtagacacctcgatatccttagaaacgtga
gactactaatgattgctttgaatatactctcttctagcatgtacagtggttctcagggct
8341 -----+-----+-----+-----+-----+-----+ 8400
ctgatgattactaacgaaacttatatgagagaagatcgatcatgtcacaagagtcacca
tctgatttcttatctgtcatgatttcagatctttgggaagttacagaagatggaactttt
8401 -----+-----+-----+-----+-----+-----+ 8460
agactaaagaatagacagtactaaagtctagaaacccttcaatgtcttctaccttgaaaa
acattaactacttgctaaaaggaaagcttgaggagctccacagccttcattgtatcatg
8461 -----+-----+-----+-----+-----+-----+ 8520
tgtaattgatgaacgattttcctttcgaacgtcctcgagggtgctcggaagtaacatagtac
agatgtgtatcttcatgatagtagatgaaatattcagccagggtgcggtagctcacacctg
8521 -----+-----+-----+-----+-----+-----+ 8580
tctacacatagaagtactatcatctactttataagtcgggtccacgccatcgagtgtggac
taatcccagtgctgtgggagggccgagggcgccagatcacctgaggtcaggagtttgagac
8581 -----+-----+-----+-----+-----+-----+ 8640
attaggggtcacgacaccctccgggtccgcccgtctagtggactccagtcctcaaactctg
cagcttggccaacatggagaaaactctgtcttactaaaaatacaaaaattagctgggtgt
8641 -----+-----+-----+-----+-----+-----+ 8700
gtcgaaccggtgtacctctttgagacagagatgatttttatgtttttaatcgaccaca
gggtgtgctgctgtaatcccagctcctcgggagggtgaggtaggagaatagcttgaac
8701 -----+-----+-----+-----+-----+-----+ 8760
ccaccacgcacggacattaggggtcgaggagccctccgactccatcctcttatcgaacttg
ccagaagtcagaggttgagtgagccaggatcggtgccactgcactccagcctgggagaca
8761 -----+-----+-----+-----+-----+-----+ 8820
ggctcttcagtcctcaacgtcactcggtcctagcacggtgacgtgaggtcggaccctctgt
gagcgagactccatctcaaaaaaaaaaaaaaaaaaaaaagattctagctgggtgggtgggt
8821 -----+-----+-----+-----+-----+-----+ 8880
ctcgctctgaggtagagtttttttttttttttttttttctaagatcgaccacccacca

Figure 1 – page 13

8881 acatgcctgtactcccagctacttggatgctgaggcaagaggattgcttgagctctggag 8940
-----+-----+-----+-----+-----+
tgtacggacatgagggtcgatgaacctacgactccgttctcctaacgaactcgagacctc
8941 tttgtgtgcagcttgggcaatatagtgtgatcactgcctctaaaaaatgtttttttttt 9000
-----+-----+-----+-----+-----+
aaacacacgtcgaaccggttatatcacactagtgcaggagatttttttacaaaaaaaaa
9001 tgagatggagctctcactctgctgtccaggctgtagtgcagtggcaggatttcactctcact 9060
-----+-----+-----+-----+-----+
actctacctcagagtgcagacgacaggtccgacatcacgtcacgcctcctaagtagagtga
9061 gcaacctccgcctcctgggttcaacaattcttttgcctcagcctccctagtagctggga 9120
-----+-----+-----+-----+-----+
cggtggaggcgaggaccgaagtgtgtaagaaaacggagtcggagggatcatcgacctt
9121 ctacaggcggtgtgccaccatgccagctaatttttgtacttttagtagagacaagatttc 9180
-----+-----+-----+-----+-----+
gatgtccgcacacggtggtacgggtcgattaaaaacatgaaaatcatctctgttctaaag
9181 accatattggtcaggctgatcttgaactcctgatctcatgatctgcctcagcctcccaaa 9240
-----+-----+-----+-----+-----+
tgggtataaccagtcgcgactagaacttgaggactagagtactagacggagtcggaggggtt
9241 gtgctgggattacaggcatgagccgctgtgcctggccaaaatttttttaattgacaa 9300
-----+-----+-----+-----+-----+
cacgaccctaattgtccgtactcggcgacacggaccggttttaaaaaaaatttaactgtt
9301 cagatttttgagatttttgggtttacaaagctgtcatagaactcaaatacaaatatctata 9360
-----+-----+-----+-----+-----+
gtctaaaaactctaaaaaccaaagtgttcgacagtatcttgagtttatgtttatagatat
9361 tagaaatgatttaattgatttagtgatgtctttgttagtatgtcattttacacgccagttc 9420
-----+-----+-----+-----+-----+
atctttactaaattactaaatcactacagaacaatcatacagtaaaatgtgcggtcaag
9421 actatctccacaaaaatgtacttataaaaaggtagaaacactattatagaatctagatct 9480
-----+-----+-----+-----+-----+
tgatagaggtgggtttttacatgaatatcttccatctttgtgataatatcttagatctaga
9481 ccaggtttccagggtttttgaaattagctaaataaaatgttaagttcctgatcactcattt 9540
-----+-----+-----+-----+-----+
gggtccaaagggtccaaaaactttaatcgattttattttacaattcaaggactagtgaataa
9541 gccttacatttttaaggataatattttaagataaaaatgtgtttataaaaagtaataaac 9600
-----+-----+-----+-----+-----+
cggaatgtaaaattcctattataaaaatttctattttacacaacaatattttcattttattg
9601 aacattacaaaaagttatatatttttaataagaaatggggcttctgctgtcaccagggtgga 9660
-----+-----+-----+-----+-----+
ttgtaatgtttttcaatatataaaaaattatctttaccccagaacgacagtggggtccgacct

Figure 1 – page 14

```
atgcagtgtcactatctgtacccctctaactcctgagttagaggggtccagatagtgaca
9661 -----+-----+-----+-----+-----+-----+ 9720
tacgtcacagtgatagacatggggagattgaggactcaatctccccaggtctatcactgt

ctcactgtacccctctaactcctggggtcaaacaatcctcttgagtagctaggactccagg
9721 -----+-----+-----+-----+-----+ 9780
gagtgcacatgggagattgaggacccgagtttgtaggagaactcatcgatcctgaggtcc

cacatgccaccatgccagctagtttttaatttctatatgggagagaggggtcttgctgt
9781 -----+-----+-----+-----+-----+ 9840
gtgtacgggtggtacgggtcgatcaaaaatttaaagatataccctctctccagaacgaca

gttgccaaggctagtctcaaactgctctcctccagcaagcctcccacttcggcctcctga
9841 -----+-----+-----+-----+-----+ 9900
caacgggttccgatcagagtttgacgagaggaggtcggttcggagggtgaagccggaggact

gtcattgggattagaggcctgagccatcatacctggcaaagttatactattcttaagaga
9901 -----+-----+-----+-----+-----+ 9960
cagtaaccctaattctccgactcggtagtagtgaccgtttcaatatgataagaattctct

taaaagattatgaatactgatgatatacctctgttctacaatgacctggggctgcttttgg
9961 -----+-----+-----+-----+-----+ 10020
atthttctaatacttatgactactataggagacaagatgttactggaccccgacgaaaacc

ttcagattggctaaaaatttaaatgtaagtaacctgaaaatctttatttaggagacagac
10021 -----+-----+-----+-----+-----+ 10080
aagtctaaccgatttttaaatattacattcattggacttttagaaataaatcctctgtctg

actcttagaatgtgattttattacctggttgataagccactgggaggaaaaaaaccttg
10081 -----+-----+-----+-----+-----+ 10140
tgagaatcttacactaaaataatggacaacctattcggtgacctccttttttttggaaac

gcacttgactattgattgtaactaaagaggcagctgctatttggttcacaaaggggtcagct
10141 -----+-----+-----+-----+-----+ 10200
cgtgaactgataactaacattgattttctccgtcgacgataaacaagtggttccagtcga

taaacattgctattgatttttaatttgattttgttcccctattcctttctttgttatgt
10201 -----+-----+-----+-----+-----+ 10260
atthtgtaacgataactaaaaatttaactaaaacaaggggataaggaaagaaacaataca

gggggtcaatgtaatcattaatcatcttggttgactaatatgcctctgtttcagcatgggt
10261 -----+-----+-----+-----+-----+ 10320
ccccagttacattagtaattagtagaacaacctgattatacggagacaaagtcgtacca

                                     H G -

ggggagttatatthtcagtgacgtctatacagaccttgaactgccagaagaaatcaggaca
10321 -----+-----+-----+-----+-----+ 10380
cccctcaatataaagtcactgcagatatgctcggaacttgacgggtcttcttttagtcctgt

G E L Y F S D V Y T S L E L P E E I R T -
```

Figure 1 – page 15

```

cacaaagttttatggggtaggtgattttgttttagtttagtattaaggcagatggttgtag
10381 -----+-----+-----+-----+-----+-----+ 10440
gtgtttcaaaatacccatccactaaaacaaatcaaatacataattccgtctaccaacatg

H K V L W

atgtgcagaactcctttctgctaatagccaggatgaggctatatgagatcacatgggggtt
10441 -----+-----+-----+-----+-----+-----+ 10500
tacacgtcttgaggaaagacgattatcggtcctactccgatatactctagtgtaccccaa

aggccatgaggccaagggtccattcttctctgccattcaaaagtgatagggttttgat
10501 -----+-----+-----+-----+-----+-----+ 10560
tccggtactccggttccaaggtaagaaggagacggttaagttttcactatcccgaaccta

agtttaattcatctctttgagttatcgttttccaaattgtaaaatgtaaataataatata
10561 -----+-----+-----+-----+-----+-----+ 10620
tcaaattaagtagagaaaactcaatagcaaaagggtttaacattttacatttattattatgt

atctgccttatagggtctgttatgaagattaaatgggataaagaatgggaaaaatactttg
10621 -----+-----+-----+-----+-----+-----+ 10680
tagacggaatatcccgacaataacttctaattttaccctatttcttaccctttttatgaaac

aaaactctagtgtggaaatgaggacaattgttcccaagctggtgtcctcttagtcccctt
10681 -----+-----+-----+-----+-----+-----+ 10740
ttttgagatcacacctttactcctgttaacaagggttcgaccacaggagaatcaggggaa

atgttctcatcattattgtgttctttatttccctttattatcattttaatagtctggaagtt
10741 -----+-----+-----+-----+-----+-----+ 10800
tacaagagtagtaataacacaagaaataaggaaataatagtaaaattatcagaccttcaa

gagataaatgcatgcttttcatcagtcctatgaaatcaaaagttcttattctttaaataat
10801 -----+-----+-----+-----+-----+-----+ 10860
ctctattttacgtacgaaaagtagtcagatacttttagttttcaagaataagaattttatta

attaactttattcttactatgtaataataaataggtaccgttaacaagttggaaagtgcc
10861 -----+-----+-----+-----+-----+-----+ 10920
taattgaaataagaatgatacattattattttatccatggcaattgttcaacctttcacgg

aaaaaaaaaaaaaaaaaagaaaaattactaagctggacacagtggcacacacctgtaac
10921 -----+-----+-----+-----+-----+-----+ 10980
tttttttttttttttttttttttttttaattgattcgacctgtgtcaccgtgtgtggacattg

cccagatatttgggagggtgagtcaggaggattgcttgagcctaggagttcaggtacagc
10981 -----+-----+-----+-----+-----+-----+ 11040
gggtctataaacctccgactcagtcctcctaacgaactcggatcctcaagtccatgtcg

ctgggtgtcatagtaaaacctatctcttaaaaaaattacttataatcatataaccagtc
11041 -----+-----+-----+-----+-----+-----+ 11100
gaccacagtatcattttgggatagagaatttttttaataatgaatattagtatattgggtca

gataacttctttttttttttttttttttttttttttttgagatggagtcctcgctctgtcaccagggc
11101 -----+-----+-----+-----+-----+-----+ 11160
ctattgaagaaaaaaaaaaaaaaaaaaaaaactctacctcagagcgagacagtggggtccg

```

Figure 1 – page 16

```

tagagtgcagtggcgcaatcttggctcactgcaacctccacttcccgggttcaagtgatt
11161 -----+-----+-----+-----+-----+-----+ 11220
atctcacgtcacccggttagaaccgagtgcgttggaggtgaagggcccaagttcactaa

ctcctgcctcagcctcccaagtagctgggattacaggtgcatgccaccatgccagctaa
11221 -----+-----+-----+-----+-----+-----+ 11280
gaggacggagtcggaggggttcacgcaccctaagtgtccacgtacggtggtacgggtcgatt

tttttgatatttttagtagagatgggggttctactgtgttggccaggctggtctccaacacc
11281 -----+-----+-----+-----+-----+-----+ 11340
aaaaacataaaaatcatctctaccccaaagtgacacaaccgggtccgaccagaggttgtgg

tgacctcatgatctgccacctcggcctcccaaagtgctgggattacaggcatgagccac
11341 -----+-----+-----+-----+-----+-----+ 11400
actggagtactagacgggtggagccggagggtttcacgaccctaagtgtccgtactcggtg

cgcgctcggcctatgattttattttttatactactttattcacataacagtgttttcaga
11401 -----+-----+-----+-----+-----+-----+ 11460
gcgcgagccggataactaaataaaaaaatatgatgaaataagtgtattgtcacgaaaagtct

atgtggcggtactgcatacatgaatattatgcttgcagctgagtagaaccaatccaccagt
11461 -----+-----+-----+-----+-----+-----+ 11520
tacaccgcatgacgtatgtacttataatacgaacgtcgactcatcttggttaggtggtca

gagtgtcctgaagaatggttcctagagaccatcagctagcacaccagtccttaaccatgg
11521 -----+-----+-----+-----+-----+-----+ 11580
ctcacaggacttcttaccaaggatctctggtagtcgatcgtgtgggtcagaattggtacc

ctttctagaccttgagggatgctcaagttagcttctactgctaggatctatgttttaac
11581 -----+-----+-----+-----+-----+-----+ 11640
gaaagatctggaacctccctacgagttcaatcgaagatgacgatcctagatacaaaattg

taataccatgtcctaattaattatatagaagaatagttcccttaatactgtattaagtgt
11641 -----+-----+-----+-----+-----+-----+ 11700
attatggtacaggattaattaatatatcttcttatcaagggaattatgacataattcaca

tggtctggtctgtggttttttgttgttgttgttttttaggtgagtgctctgggtggtgctt
11701 -----+-----+-----+-----+-----+-----+ 11760
accgaccagacacacaaaaaacaacaacaaaaaatccactcacagaccaccacgaa

                                     G E C L G G A L -

tatactggaaggaacttgctgtccttgctcaaaaaattgggttctgcctccacgtttgg
11761 -----+-----+-----+-----+-----+-----+ 11820
atatgaccttccttgaacgacaggaacgagttttttaaccaagacgggaggtgcaaacc

Y W K E L A V L A Q K I G F C P P R L V -

```

Exon 8

tcactgccaatctcattacaattcaaaacaagggaactggaaagagtatatcggtgaagatat
11821 -----+-----+-----+-----+-----+-----+ 11880
agtgtacggttagagtaattgttaagttttgttccttgacctttctcaatagccattctata

T A N L I T I Q N K E L E R V I G

gacagacagcagggactattataactacagcttgaatgattgaaatgtgggtgattagtaa
11881 -----+-----+-----+-----+-----+-----+ 11940
ctgtctgtcgtccctgataatattgatgtcgaacttactaactttacaccactaatcatt

gtaacttctgaaggagtctcattgagggatactttctgttatctggaaatagctatcttg
11941 -----+-----+-----+-----+-----+-----+ 12000
cattgaagacttcctcagagtaactccctatgaaagacaatagacctttatcgatagaac
I8 (154)
cctcctgtacaatggtaacccccdaaaaaattttgatatttaataaagcactttgaagtca
12001 -----+-----+-----+-----+-----+-----+ 12060
ggaggacatgttaccattgggggggtttttaaaactataaattatttcgtgaaacttcagt
I8 (213)
ttcagtaaatagagtgaagtgtctcagaaagataactgatgacatgcaaggaagaaaatca
12061 -----+-----+-----+-----+-----+-----+ 12120
aagtcatttatctcacttcacgagtcctttctattgactactgtacgttccttcttttagt

tctttataacgtgtttgctccttgctgtctgagcaaggcaacaactgggggagtgctgga
12121 -----+-----+-----+-----+-----+-----+ 12180
agaaatattgcacaaacgaggaacagacgactcgttccgttggttgacccccctcacgacct

gatgaaccgtgaataaattctattttttaggtgactgtcgtttttgtttctgcaacatttcg
12181 -----+-----+-----+-----+-----+-----+ 12240
ctacttggcacttatttaagataaaaatccactgacagcaaaacaaagacgttgtaaagc

D C R F V S A T F R -

cctcttcaaacactctaagacaggaccaaccaagagatgccaaagtattttacaatggagg
12241 -----+-----+-----+-----+-----+-----+ 12300
ggagaagtttgtgagattctgtcctgggttggttctctacggttcaataaatgttacctcc

L F K H S K T G P T K R C Q V I Y N G G -
860
aattacaggacatgaaaaagaactaatttttgatgccaaattttacatttaaggtaaataa
12301 -----+-----+-----+-----+-----+-----+ 12360
ttaatgtcctgtactttttcttgattacaaactacgggttaaaatgtaaattccatttatt

I T G H E K E L M F D A N F T F K

aacaatttccatgacttctggtattctttctgctccttgctccagctatcttttc
12361 -----+-----+-----+-----+-----+-----+ 12420
ttgttaaagggtactgaagaccataagaaagacgagaacgggaacgaggtcgatagaaaaag

ttgactttgcattgcctcccatTTTTCTGGTGTGGTGTGTTGTGTGTGTTAAATG
12421 -----+-----+-----+-----+-----+-----+ 12480
aactgaaacgtaacggagggtaaaaagaccacaaccaaaacacacacacaaaatttac

Figure 1 – page 18

```
tatgtgtgtgtttcaagtggagtaaaaaagcattttttccccaataacttatttatttatt
12481 -----+-----+-----+-----+-----+-----+ 12540
atacacacacaaagttcacctcatttttttcgtaaaaaaggggttatgaataaataataa

gacaggggtctcgctctgtcaccagggctggagtgcagtagcacatcatagttcactgca
12541 -----+-----+-----+-----+-----+-----+ 12600
ctgtcccagagcgagacagtgggtccgacctcacgtcatcgtgttagtatcaagtgcgt

gcctgacctcctgggctcaagcgatcctcccacctcaggcttctgagtagctaggactac
12601 -----+-----+-----+-----+-----+-----+ 12660
cggactggaggacccgagttcgctaggagggtggagtccgaagactcatcgatcctgatg

agactcatcaccacacctggctaataatttgtattttttgtagagatgggggttttgccatg
12661 -----+-----+-----+-----+-----+-----+ 12720
tctgagtagtggtgtggaccgattataaacataaaaaacatctctaccccaaacggtac

ttgcccagactgggtcttgaactcctgggctcaagtgatgtgccacctcagcctcccaaa
12721 -----+-----+-----+-----+-----+-----+ 12780
aacgggtctgaccagaacttgaggacccgagttcactacacgggtggagtgcgagggttt

gtgctgggattacaggcgtgaaccaccgtgccagccctcaatatttattataaaaatgt
12781 -----+-----+-----+-----+-----+-----+ 12840
cacgaccctaattgtccgcacttgggtggcacgggtcgggagttataaataatatttttaca

ttttggccaggtgcggtgggtcacacctgtaatcctagcactttgggaggctgaggcagg
12841 -----+-----+-----+-----+-----+-----+ 12900
aaaaccggtccacgccaccgagtggtggacattaggatcgtgaaaccctccgactccgtcc

cagattacctgagggtcaggagttcgagaccagcctgacgaacatggcgaaaaccatctc
12901 -----+-----+-----+-----+-----+-----+ 12960
gtctaattggactccagtcctcaagctctgggtcggactgcttgtaccgcttttgggtagag

tactaataaaaaatacaaaaattagccgggctgggtgggtgacctgtaatccaactac
12961 -----+-----+-----+-----+-----+-----+ 13020
atgattatttttatgttttttaatcggcccgaccaccaccacggacattaggggtgatg

tctggaggctgaggcaggagaattgcatgaaccgggaggtggaggttgaggtgagctga
13021 -----+-----+-----+-----+-----+-----+ 13080
agacctccgactccgtcctcttaacgtacttgggcctccacctccaactccactcgact

gatcatgccattgcactccagcctgggcaacagagtgcagactccatctcaaaaaaaaaaa
13081 -----+-----+-----+-----+-----+-----+ 13140
ctagtacggtaacgtgaggtcggaccggtgtctcactctgaggtagagttttttttttt

aaaaaaaaagaagtttttgaatacagaaaagttaatagtacaatgaataccacataggca
13141 -----+-----+-----+-----+-----+-----+ 13200
ttttttttcttcaaaaacttatgtcttttcaattatcatgttacttatgggtgtatccgt

ttacctatatttcagcaattgagaacatttttccatgtttgtgtgtttatatgtgtatat
13201 -----+-----+-----+-----+-----+-----+ 13260
aatggatataaagtcgttaactcttgtaaaaagggtacaaacacacaaatatacacatata
```

Figure 1 – page 19

atataatatatatttttctgagccattgaaaataagttgcagatattatgacatttta
13261 -----+-----+-----+-----+-----+-----+ 13320
tatataatatataaataaacgactcggttaacttttattcaacgtctataatactgtaaaat
cccttaaataatttcagcatgcgtcccataggaatgtaatatccctctgcataatcacaaat
13321 -----+-----+-----+-----+-----+-----+ 13380
gggaattttataaagtcgtacgcagggtatccttacattataggagacgtattagtgtta
accattacacacctaagaaaactttttacaagaagcctcattcagacattggattaatag
13381 -----+-----+-----+-----+-----+-----+ 13440
tggtaatgtgtggattcttttgaaaaatgttcttcggagtaagtctgtaacctaattatc
ggctatagagaagtaggatggaaaagagtaggagtatgtacaatagtatttcaattgttt
13441 -----+-----+-----+-----+-----+-----+ 13500
ccgatatctcttcatcctaccttttctcatcctcatatggttatcataaagttaacaaa
aattgtgtcaaggaattaagaaatttttaattgttgatgatggcactaattggcattttta
13501 -----+-----+-----+-----+-----+-----+ 13560
ttaacacagttccttaattcttttaaaattacaacactactaccgtgattaaccgtaaaaat
ctgccctgtgcatagtaagatttgttttctcaaaatggaaaagttcaggctttggaatca
13561 -----+-----+-----+-----+-----+-----+ 13620
gacgggacacgtatcattctaaacaaaagagttttaccttttcaagtcgaaaccttagt
gatacctgggttcaaattctggctctattattattgtttttttttttttctgaatgt
13621 -----+-----+-----+-----+-----+-----+ 13680
ctatggaccaagttaagaccgagataataataacaaaaataaaaaaaaaagacttaca
cactagacaaaacttttattgaagcataaattgtggtacagaaatacatttttaactgattt
13681 -----+-----+-----+-----+-----+-----+ 13740
gtgatctgtttgaaaataaacttcgtatttaacaccatgtctttatgtaaaattgactaaa
aagtccaacaccagtgaaaggagagattatggcaccaaaaactttccctttcctatcatatc
13741 -----+-----+-----+-----+-----+-----+ 13800
ttcaggttgtggtcactttcctctctaataaccgtggttttgaaagggaaggatagtatg
catgatttagattatgatgcaatctacatttctcttttctaggctttgtcccatacaaat
13801 -----+-----+-----+-----+-----+-----+ 13860
gtactaaatctaatactacgttagatgtaaagagaaaagatccgaaacagggtatgttta
ttgggcagtttttcaacattagaatttcaacattagaattcttaattctattaggaaaaa
13861 -----+-----+-----+-----+-----+-----+ 13920
aaccggtcaaaaagttgtaattcttaagttgtaattcttaagaattaagataatccttttt
aagcaacaaaaaaaccagacctcaagtcaacaaatctattggatattgtttatgaacgaa
13921 -----+-----+-----+-----+-----+-----+ 13980
ttcgttgttttttttgggtctggagttcagttgttttagataacctataacaaatacttgctt
gtccacgttaagcatttggtcctcaaaacagagctcctcaaaatattaggtgctgtgctca
13981 -----+-----+-----+-----+-----+-----+ 14040
caggtgcaattcgttaaccaggagttttgtctcgaggagttttataatccacgacacgagt

Figure 1 – page 20

```

ttacagaatcaaactgatcacactgattgaaaacttcctcaatgaaattttcaatcaaca
14041 -----+-----+-----+-----+-----+-----+ 14100
aatgtccttagtttgactagtgtgactaacttttgaaggagttactttaaaagttagttgt

acatgcttcaaataaaagtcaaacagtggtccaaccacttgacttcaaaccaagtagatt
14101 -----+-----+-----+-----+-----+-----+ 14160
tgtacgaagtttattttcagtttgtcacaagggttggtgaactgaagtttggttcacataa

ttaggttttagaaacactaaaaaagggtgtttcatttataaatacagaaggaacaaaaaca
14161 -----+-----+-----+-----+-----+-----+ 14220
aatccaaatccttgtgattttttccacaaagtaaatatttatgtcttccttggttttgt

tcactgcatcaatccagaaattatcaaaatatttagaggacaagaaatataaaatttagt
14221 -----+-----+-----+-----+-----+-----+ 14280
agtgcagtagtttaggtctttaatagttttataaatctcctgttctttatattttaaatca

caactttgctgcttttctcagtttccttaaaatcccagagtatctgcaaatatagctaaaaa
14281 -----+-----+-----+-----+-----+-----+ 14340
gttgaaacgacgaaagagtcagggaatttttagggctctcatagacgtttatatcgattttt

gtaccaactcttgaaagcctatattactagtcatttcccattgagtattttggaatttta
14341 -----+-----+-----+-----+-----+-----+ 14400
catggttgagaactttcggatataatgatcagtaaagggttaactcataaaaccttaaaat

tttatgttctacttatttattcatgtattctgctttatgatgtttatctgaataatctgg
14401 -----+-----+-----+-----+-----+-----+ 14460
aaatacaagatgaataaataagtacataagacgaaatactacaaatagacttattagacc

acaaattctcattctgggcagtcattcgtttcatcctatgaatgccatgggtgagggaaac
14461 -----+-----+-----+-----+-----+-----+ 14520
tgtttaagagtaagaccgcgcagtaagcaaagtaggatacttacgggtaccactccctttg

agtgtagtttagaggaacagatgaagtcagaacactcacatgcatcacggtcacagaactt
14521 -----+-----+-----+-----+-----+-----+ 14580
tcacatcaatctccttgtctacttcagtcctgtgagtgtagtgccagtggtcttgaa

taagtcacaagacagaaaagaaatcgattctgctttggatcaaagtttatagaacactac
14581 -----+-----+-----+-----+-----+-----+ 14640
attcagtggttctgtcttttcttttagctaagacgaaacctagtttcaaatatcttgtgatg

ttaatggaaactagtggaatggctgctaaaggaaaagttaagggtgaatgatccaagctg
14641 -----+-----+-----+-----+-----+-----+ 14700
aattacctttgatcacctttaccgacgatttcttttcaattccacttactaggttcgac

acttgattactgaatccagaacaaaattatgctaaatctctctggtaattaactaaataa
14701 -----+-----+-----+-----+-----+-----+ 14760
tgaactaatgacttaggtcttgttttaatacagatttagagagaccattaattgatttatt

aaatcattttatactattatttagtaagtttagtaaaaggcgtgctactcattagatgctaa
14761 -----+-----+-----+-----+-----+-----+ 14820
tttagtaaaatatgataataaatcattcaatcatttccgcacgatgagtaatctacgatt

```

Figure 1 – page 21

```
tctcatttactgaggaacacagaattgtatatgttttctggctctattatttattacttg
14821 -----+-----+-----+-----+-----+ 14880
agagtaaagactccttgtgtcttaacatatacaaaagaccgagataataaataatgaac

ggtaaacttgaacaagtcacccaaaattcgttgggttacagtttgttctactgtaaaagca
14881 -----+-----+-----+-----+-----+ 14940
ccatttgaacttgttcagtggttttaagcaaccaatgtcaaacaagatgacattttcgt

gggataataataacttacttttgagaatttctataaggattagcaataatgtagcaaaaca
14941 -----+-----+-----+-----+-----+ 15000
ccctattattatgaatgaaacgtcttaagatatcctaatacgttattacatcgttttgt

ctgggtacatactgcaagttcagtgaaaagaagatactgtcattatttgttccaaaagtg
15001 -----+-----+-----+-----+-----+ 15060
gacccatgtatgacgttcaagtcacttttcttctatgacagtaataaacaaggttttcac

gaagaacttactattaatatttcatTTTTCTGATTTATTTATCTATTTTAGAGACA
15061 -----+-----+-----+-----+-----+ 15120
cttcttgaatgataattataaaagtaaaaagactaaataaataaataagataaaatctctgt

aagtctctctctgtcacccatgctggagtgtagtggcacagtcatagctcactgtaacct
15121 -----+-----+-----+-----+-----+ 15180
ttcagagagagacagtgggtacgacctcacatcacgtgtcagtatcgagtgcattgga

caaactcctgggctcaagcgattctcccatctcagcctccaagtagctgggactacagg
15181 -----+-----+-----+-----+-----+ 15240
gtttgaggacccgagttcgctaagagggtagagtcggagggttcacgacctgatgtcc

catgtgtcaccatgcctggctaattttttattttttatttttttgttggtgagacaggttt
15241 -----+-----+-----+-----+-----+ 15300
gtacacagtggtacggaccgattaaaaaataaaaaataaaaaacaaccactctgtccaa

tttttttttttcttttttgagaccaagtctcgctctgtcactcaggctggagtgcagtgg
15301 -----+-----+-----+-----+-----+ 15360
aaaaaaaaaagaaaaaactctggttcagagcgagacagtgagtcgacctcacgtcacc

cccgatctcggctcactgcaagctccacctcccggttcacgccattctcctgccttagc
15361 -----+-----+-----+-----+-----+ 15420
gggctagagccgagtgacgttcgaggtggagggcccaagtgcggttaagaggacggaatcg

ctcccaagtagctgggactacaggtgcccgccaccacccggctaattttttgtatttt
15421 -----+-----+-----+-----+-----+ 15480
gaggggttcacgacctgatgtccacgggcgggtggtgtgggccgattaaaaaacataaaa

tagtagagttgggatttcaccgtgttagccaggatggtctcaatctcctggcctcgtgat
15481 -----+-----+-----+-----+-----+ 15540
atcatctcaaccctaaagtggcacaatcggtcctaccagagtttagaggaccggagcacta

ccacccgcctcggcctcccaaagtgtgtggattacaggcgtgagccaccactcccgccca
15541 -----+-----+-----+-----+-----+ 15600
ggtgggaggagccggagggtttcacgacctaatgtccgcactcgggtggtgagggccggt
```

Figure 1 – page 22

agacaggttcttatattgccaggtggtcttgaactcctggcctcaagcaattctccca
15601 -----+-----+-----+-----+-----+-----+ 15660
tctgtccaagaatataacgggtccgaccagaacttgaggaccggagttcgtaaagggt
cctcagcctcccaaagttgcaagcatgtgtcactgtgcctggcttcttctgatttttttg
15661 -----+-----+-----+-----+-----+-----+ 15720
ggagtccggagggtttcaacggttcgtacacagtgcacggaccgaagaagactaaaaaac
gtctaaatagcatctccagatttcttttttttttaatttaaaaaatgtattttattct
15721 -----+-----+-----+-----+-----+-----+ 15780
cagatttatcgtagagggtctaaagaaaaaaaaaattaaattttttacataaataaaga
ttatttagacacagggctcttgctatgttgccacactggggtacactggctattcacagg
15781 -----+-----+-----+-----+-----+-----+ 15840
aataaatctgtgtcccagaacgatacaacgggtgtgaccccatgtgaccgataagtgtcc
tgtaagcatagcccactatagtcttgaactcctggcctcaagggatccttcacctcagc
15841 -----+-----+-----+-----+-----+-----+ 15900
acattcgatcgggtgatatcagaacttgaggaccggagttccctaggaagggtggagtgc
cttccaagtctgggactacatctggctaagcatcttcaaatttcttattttattttat
15901 -----+-----+-----+-----+-----+-----+ 15960
gaagggttcagaccctgatgtagaccgattcgtagaagtttaagaataaataaataaata
ttatttttgagatggagtcttgctctgttgccctaggctggagtgcagtgactcaatctca
15961 -----+-----+-----+-----+-----+-----+ 16020
aataaaaaactctacctcagaacgagacaacggatccgacctcacgtcactgagttagagt
gctcactgcaacctctgcctcctgggttcaagccgatttctcctgccttagcctctcgagt
16021 -----+-----+-----+-----+-----+-----+ 16080
cgagtgcggttgagacggaggaccaagttcggtcaagaggacggaatcgagagctca
agcagggattacaggcgtgtgccaccacaccagctaattttttatatttttattagagac
16081 -----+-----+-----+-----+-----+-----+ 16140
tcgtccctaattgtccgcacacgggtggtgtgggtcgattaaaaatataaaaataatctctg
agggtttcaccatgttgccaggtggtctcgaactcctgacctcaggtaatctaccgcg
16141 -----+-----+-----+-----+-----+-----+ 16200
tcccaaagtggtacaaccgggtccgaccagagcttgaggactggagtccattagatgggcg
ctcggcctcccaaagtgtggtggtgattacaggcgtgagccactgtgccggctgcattctca
16201 -----+-----+-----+-----+-----+-----+ 16260
gagccggagggtttcacgaccctaattgtccgcactcgggtgacacgggcccgcgtagaagt
aatttcttaataactccttggtatagtggagcccttaattgttttactaatgcactgct
16261 -----+-----+-----+-----+-----+-----+ 16320
ttaagaatttatgaggaaccatatcacctcgggaattacgaaaagtgattacgtgacga
ccttgatgtgctgcctattccagtagatacacagaatcagagtggtaagggcctttgaaa
16321 -----+-----+-----+-----+-----+-----+ 16380
ggaactacacgacggataaggtcatctatgtgtcttagtctcaccattcccggaaacttt

Figure 1 – page 23

```
ccattgatttgttctagtggctttcaaaaaccatttttaatacaattattttttaagcaa
16381 -----+-----+-----+-----+-----+ 16440
ggtaactaaacaagatcaccgaaagttttttggtaaaaattatgttaataaaaaattcggt

aatgttttatatatatatatatatgggttttttttttttgagatggagtcttgctctggt
16441 -----+-----+-----+-----+-----+ 16500
ttacaaaatatatatatatataacaaaaaaaaaaaaactctacctcagaacgagacaa

gccaggctagagtgcagtggtgcaatctcggtcactgcaacctcagcctccctgggtc
16501 -----+-----+-----+-----+-----+ 16560
cgggtccgatctcacgtcaccacgttagagccgagtgacgttgagatcggagggaccaag

aagtgattttcctgcctcagcctccccagtagcttggactacaggtgggtgccaacgcac
16561 -----+-----+-----+-----+-----+ 16620
ttcactaaaaggacggagtcggaggggtcatcgaacctgatgtccaccacggttgctgt

ctggctaatttttgcatttttagtagagacagggtttcaccatggtggccaggctggtct
16621 -----+-----+-----+-----+-----+ 16680
gaccgattaaaaacgtaaaaatcatctctgtcccaaagtggtaaacgggtccgaccaga

taaactcctgacctcaggtgatctgccacctcggcctcccaaagtactaggattataga
16681 -----+-----+-----+-----+-----+ 16740
at ttgaggactggagtcactagacgggtggagccggagggtttcatgatcctaatactct

tgtgagccactgtgccagccagaaatgcactttaaaaaccaccagtccttgctgggca
16741 -----+-----+-----+-----+-----+ 16800
acactcggtgacacgggtcgggtctttacgtgaaatttttggtggtcaggaacggaccgt

tggtgggtcacacctgtaatcccagcactttgggaggctgaggcgggtggattacctgag
16801 -----+-----+-----+-----+-----+ 16860
accaccgagtggtggacattagggtcgtgaaacctccgactccgccacctaatggactc

gtcaggaggttcgagaccagcctgatcaacatgatgaaacctgtctctactaaaaataca
16861 -----+-----+-----+-----+-----+ 16920
cagtcctcaagctctggtcggactagttgtactactttgggacagagatgatttttatgt

aaaattagccgggctggtggcgtgtgcctgttatcccagctactcgagaggctaaggca
16921 -----+-----+-----+-----+-----+ 16980
ttttaatcggccccgcaccaccgcacacggacaatagggtcgatgagctctccgattccgt

ggagaatcggcttgaaccaggaggcagaggttgacgtgagctgagattgagtcactgca
16981 -----+-----+-----+-----+-----+ 17040
cctcttagccgaacttggtcctccgtctccaacgtcactcgactctaactcagtgacgt

ctccagcctgggcaacagagcaagacttcatctcaaaaacaaacaaagaaaaaacc
17041 -----+-----+-----+-----+-----+ 17100
gaggtcggacccgttggtctcgttctgaagtagagtttttggttggttcttttttg

cccaatagtccaaagccctaattttccccccattatttattttttaatgggcaaatttt
17101 -----+-----+-----+-----+-----+ 17160
gggttatcaggtttcgggattaaaaggggggtaataaataaaaaaattaccggttataaa
```

Figure 1 – page 24

```
17161 aaaaattgtatatatatatttatgggtgtacaatgggatgttttgacatatgtatacattatg 17220
-----+-----+-----+-----+-----+-----+
17221 tttttaacatatataaataaccacatgtttaccctacaaaactgtatacatatgtaatac
gaatgactaaatcaagataattaaaaatgcattacctcacatactcaccattttatttgtga
17221 -----+-----+-----+-----+-----+-----+ 17280
17221 cttactgatttagttctattaatttttacgtaatggagtgtatgagtggtaaataaacact
tgagatcaaagtctactcttttagcaattttctttttctttttctttttctttttcttttattt
17281 -----+-----+-----+-----+-----+-----+ 17340
17281 actctagtttcagatgagaaaatcgttaaaagaaaaagaaaagaaaagaaataaaa
ctttttttttttttttttttgaggcagaatcttgctctgtcgccaggctggagtgcagtggc
17341 -----+-----+-----+-----+-----+-----+ 17400
17341 gaaaaaaaaaaaaaaaaaactccgtcttagaacgagacagcgggtccgacctcacgtcacg
acaatctcggtcactgcaacctccacctctcaggttcaagcgattatcctgcctcagcc
17401 -----+-----+-----+-----+-----+-----+ 17460
17401 tggtagagccgagtgcggttgagggtggagagtcctaagttcgctaataaggacggagtcgg
ttccaagtagctgggactataggtgtgtgctaccacaccagctaattttttgtattttt
17461 -----+-----+-----+-----+-----+-----+ 17520
17461 aagggttcacgcacctgatatccacacacgatgggtgtgggtcgattaaaaaacataaaaa
agtagagatggagtttcaccatgttggccaggctgggtcttgaactcctgacctcaggtga
17521 -----+-----+-----+-----+-----+-----+ 17580
17521 tcatctctacctcaaagtgggtacaaccggtccgaccagaacttgaggactggagtccact
tccccctgcttcagcctcccaaagtgtggtggtgattacaggcgaggtgccagcctttta
17581 -----+-----+-----+-----+-----+-----+ 17640
17581 agggggacgaagtcggagggtttcacgaccctaattgtccgctccacgggtcggaataa
gcaattttccaatacatgtttatttaactatagtcaccatgttgtataatagatctctttta
17641 -----+-----+-----+-----+-----+-----+ 17700
17641 cgtaaagggttatgtaacaataattgatatcagtggtacaacatattatctagagaaatt
cttattcctgataactgaaattttgtatcctttaaccaacatctatcctgttccaccctt
17701 -----+-----+-----+-----+-----+-----+ 17760
17701 gaataaggactattgactttaaaacataggaaattgggtttagataggacaagggtgggga
gccctcccacccctaccccccagccctggtaagagcctctactcttcacctctatgagt
17761 -----+-----+-----+-----+-----+-----+ 17820
17761 cgggaggggtgggggatgggggtcggggaccattctcggagatgagaagtggagatactca
tcaactttttgaaattccacatatataatctagcgaggttatgcagtatttgtttttcagtg
17821 -----+-----+-----+-----+-----+-----+ 17880
17821 agttgaaaaactttaagggtgtatattagatcgctccaatacgtcataaacaataaagtcac
cctgcagatatgacattttttgggttcaactttttgtttgtttttgagatggaatctcact
17881 -----+-----+-----+-----+-----+-----+ 17940
17881 ggacgtctatactgtaaaaacccaagttgaaaaacaacaaaaactctaccttagagtga
```


Figure 1 – page 25

cttgctgcccaggctggagtgagtgaggctgatcttggtcactgcaatctccgcctcct
17941 -----+-----+-----+-----+-----+-----+ 18000
gaacagcgggtccgacctcacgtcaccgcactagaaccgagtgacgttagagggcgaggga
gggttcaagccattctcctgtctcagcctcctgagtagcagggattacagggcgctgccca
18001 -----+-----+-----+-----+-----+-----+ 18060
cccaagttcggtaagaggacagagtcggaggactcatcgtccctaattgtccgcggacggt
ccgtgcccagctaatttttgtatttttagtagagacgggggttccactatgttgccaggc
18061 -----+-----+-----+-----+-----+-----+ 18120
ggcacgggtcgattaaaaacataaaaatcatctctgccccaaagtatacaaccgggtccg
tggtctctaactcctgacctcagacgatctgcctgcattggcctccaaaactgctgggat
18121 -----+-----+-----+-----+-----+-----+ 18180
accagagattgaggactggagtcctgtagacggacgtaaccggagggtttgacgacccta
tacaggcatgagacactgcgaccggccaaacatttttttaattgcataatagatgtacata
18181 -----+-----+-----+-----+-----+-----+ 18240
atgtccgtactctgtgacgctggcgggtttgtaaaaaattacgtattatctacatgtat
ctttcagggcacatctgataatttaatatattcatataatttgtagacatcaagtcaatg
18241 -----+-----+-----+-----+-----+-----+ 18300
gaaagtcccgtgtagactattaaattatataagtagatattaaacatgtctagttcagttac
taactggatatatccatcgccttaaacatttgccttttctttattctaggaacccatttga
18301 -----+-----+-----+-----+-----+-----+ 18360
attgaccatataggtagcggaatttgtaaacagaaaagaaataagatccttgggttaaact
attattcttttctagctattttgaaatatacaatagattattgtgaactatagtcaccct
18361 -----+-----+-----+-----+-----+-----+ 18420
taataagaaaagatcgataaaaactttatatgttatctaataacacttgatatcagtggga
actgatccatcgaacactaggtcttatttcttcttattaaactggattttgtactcatta
18421 -----+-----+-----+-----+-----+-----+ 18480
tgactaggtagcttgtagatccagaataaagaagaataatttgacctaaaacatgagtaat
atcaagctctcttcacacctccccactctacctggcgtctggtaaccaccaatctactctc
18481 -----+-----+-----+-----+-----+-----+ 18540
tagttcgagagaagtaggaggggtgagatggaccgcagaccattggtggttagatgagag
tattatcatgaggtccacttttttagctcccacatatcagcgagaacatgtaatatctgt
18541 -----+-----+-----+-----+-----+-----+ 18600
ataatagtactccaggtgaaaaaatcgagggtgtatagtcgctcttgtagattataagca
ctttttgaggttggtcttatttctcttaacataatgacctgcagttccatgcatgttgctg
18601 -----+-----+-----+-----+-----+-----+ 18660
gaaaaactccaaccgaataaagagaattgtattactggacgtcaaggtagctacaacgac
caggtgacaggatttcttcttttattttattttattttttttgagacagagtcctt
18661 -----+-----+-----+-----+-----+-----+ 18720
gtccactgtcctaaggaagaaaataaaaataaaaataaaaaaactctgtctcagaa

Figure 1 – page 26

```
actctgtctcccaggttggagtgagtgaggctgactcttggtcactgaaacctccggctg
18721 -----+-----+-----+-----+-----+-----+ 18780
tgagacagaggggtccaacctcacgtcaccgcactagaaccgagtgactttggaggccgac

ccaggttcaagtaattctcctgcctcagcctcctgagtagctgggactacaggcgctgc
18781 -----+-----+-----+-----+-----+-----+ 18840
ggtccaagttcattaagaggacggagtcggaggactcatcgaccctgatgtccgcgcacg

caccacaccaactaattttttttttttttttttttttttttttttttttttttttttttt
18841 -----+-----+-----+-----+-----+-----+ 18900
gtggtgtgggttgattaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaa

ttttttttgagacggagtctcgctctgtcgccaggctggagtgcagtggcgggatctcg
18901 -----+-----+-----+-----+-----+-----+ 18960
aaaaaaaaactctgcctcagagcgagacagcgggtccgacctcacgtcaccgccctagagc

gctcactgcaagctccgcctcccgggttcacgccattctcctgcctcagcctcccaagta
18961 -----+-----+-----+-----+-----+-----+ 19020
cgagtgcagttcgaggcggagggcccaagtgcggttaagaggacggagtgcgaggggtcat

gctgggactacaggcgcccgccactacgccggctaattttttgtatttttagtagagac
19021 -----+-----+-----+-----+-----+-----+ 19080
cgaccctgatgtccgcgggcgggtgatgcgggcccattaaaaaacataaaaatcatctcg

gggggtttcacggttttagccgggatggtctcgatctcctgacctcgtgatccgccgcct
19081 -----+-----+-----+-----+-----+-----+ 19140
cccaaagtggcaaatcggccctaccagagctagaggactggagcactaggcgggcgga

cggcctcccaaagtgcgtgggattacaggcgtgagccaccgcgcccgccactaattttt
19141 -----+-----+-----+-----+-----+-----+ 19200
gccggaggggtttcacgaccctaattgtccgcactcgggtggcgcgggccgggtgattaaaaa

gtatttttagtagagatgggggtttcacatggttggaaggctggtctcgaactcctgacct
19201 -----+-----+-----+-----+-----+-----+ 19260
cataaaaatcatctctaccccaaagtgtacaaccgttccgaccagagcttgaggactgga

caggtgatccgcctgcctcggcctcccaaagtgcgtgggattacaggcttgggccaccgca
19261 -----+-----+-----+-----+-----+-----+ 19320
gtccactaggcggacggagccggaggggtttcacgaccctaattgtccgaaccgggtggcgt

ccaggccaggatttcttcttttttcaagtctgaatagtattccagtgtgtacataacta
19321 -----+-----+-----+-----+-----+-----+ 19380
ggtccggtcctaaggaagaaaaagtccagacttatcataaggtcacacatgtatatgat

ctacgttttctttatccgttcattctgtttgagtccttctttttttttagttagctaaag
19381 -----+-----+-----+-----+-----+-----+ 19440
gatgcaaaagaaataggcaagtagacaaactcagaagaaaaaagaatcaaatacgatttc

atatttttattttttcaaaaaactaatttttcattttgttgatcttctgtattttttta
19441 -----+-----+-----+-----+-----+-----+ 19500
taaataaaataaaaaagttttttgattaaaaagtaaaacaactagaagacataaaaaaat
```

Figure 1 – page 27

```
gtctcaatttcatttatttctgctgtgatgttctttctttccttctactaattttgagtt 19501
-----+-----+-----+-----+-----+-----+ 19560
cagaggttaaagtaaataaagacgacactacaagaaagaaaggaagatgattaaaactcaa

tgatttggttcttgcttttatagttccctcatgggcattactaggttgtttatttgagtc
19561 -----+-----+-----+-----+-----+-----+ 19620
actaaacaagaacgaaaatatcaaggagtagccgtaatgatccaacaaataaacttcag

tgttccttctttccttcattccttccttcctccctccctccctccctccttcttcttc
19621 -----+-----+-----+-----+-----+-----+ 19680
acaaggaagaaaggaagtaaggaaggaaggagggagggagggagggagggagaaggaag

cttcattctttctttttttttttgagaggggaatctcgctctgttgcccaggttgagtg
19681 -----+-----+-----+-----+-----+-----+ 19740
gaaggttaagaaagaaaaaaaactctcccttagagcgagacaacgggtccaacctcacg

agtggcgcatctcagctcactgcaacctccacctcccggttcaagcaattctcctgtc
19741 -----+-----+-----+-----+-----+-----+ 19800
tcaccgctgtagagtcgagtgacgttgagggtggagggcccaagttcgtaagaggacag

tcagcctcccaagtagctgggattacaggcatgcaccaccagcctggctaatttttttg
19801 -----+-----+-----+-----+-----+-----+ 19860
agtcggaggggttcacgcacctaatgtccgtacgtggtggtgaggaccgattaaaaaac

tatttttagtagagacgggggtttcaccatattggccaggctggtcttgaactcctgactc
19861 -----+-----+-----+-----+-----+-----+ 19920
ataaaaatcatctctgccccaaagtgtataaccggtccgaccagaacttgaggactgag

tgccgcctcagcctcccaaagttctgggattacagggtgtagccattgtgcccggccct
19921 -----+-----+-----+-----+-----+-----+ 19980
acgggcgggagtcggaggggttcaagaccctaattgtccacaatcggtaacacgggcccggga

tctttcttttcttcttcttcttcttctcagggtctcactctgtcacctggactggagtga
19981 -----+-----+-----+-----+-----+-----+ 20040
agaaaggaaagaagaagaagaagaagagtcagagtgagacagtgagacctgacctcacgt

gtggtgcaatcatggctcacagcagctttgacctcctgggctcaggcaatcctcctaccc
20041 -----+-----+-----+-----+-----+-----+ 20100
caccacgttagtagcagagtgctcgtaaaactggaggacccgagtcggttaggaggatggg

cagcatcccaagtagctgggactaaggctaccatgcctggctgatttttgattttctgt
20101 -----+-----+-----+-----+-----+-----+ 20160
gtcgtaggggttcacgcacctgattccgatggtagcgaccgactaaaaacataaaagaca

agagacaggctttcaccatgttgccagtcgtcttgaactcctgggctcaagcaatcc
20161 -----+-----+-----+-----+-----+-----+ 20220
tctctgtccgaaagtgttacaacgggtcagacgagaacttgaggacccgagttcgtagg

acctgccttgccctcccaaagtgtgagatcttatttgaaatctttcaacttttttgata
20221 -----+-----+-----+-----+-----+-----+ 20280
tgagcgaacggaggggtttcacgactctagaataaactttagaaagttgaaaaaactat
```

Figure 1 – page 28

```

taggcattacttgaaatctttctacttttttgatataggcatttattgctataaaactttc
20281 -----+-----+-----+-----+-----+-----+ 20340
atccgtaatgaacttttagaaagatgaaaaactatatccgtaaataacgatatttgaaag

ctcttagtgctgcttctgctgtatcccatagatttttgcagtggtgatttccattttcat
20341 -----+-----+-----+-----+-----+-----+ 20400
gagaatcacgacgaagacgacatagggtatctaaaaacgtacaacataaaggtaaaagta

ctgtttcaagatatattttaaatttttctcctaatttcttcatggaccattggctattcag
20401 -----+-----+-----+-----+-----+-----+ 20460
gacaaagttctataaaattttaaagaggattaaagaagtacctgggtaaccgataagtc

gagcatggtgtttaatttccatgtgtttgtgtattttccaaggttcttggtattgatttc
20461 -----+-----+-----+-----+-----+-----+ 20520
ctcgtacaacaaattaaaggtacacaaacacataaaaggttccaagaacaataactaaag

taattttattccatagtggtgagaaagatacttggttatgatgtctacttttctgaatttg
20521 -----+-----+-----+-----+-----+-----+ 20580
attaaaataaggtatcaccactctttctatgaacaatactacagatgaaaagacttaaac

ttaagacttgttttgtggcctaagatatagtctatgctggagaatgttccatgtgctatt
20581 -----+-----+-----+-----+-----+-----+ 20640
aattctgaacaaaacaccggattctatatcagatacgacctcttacaaggtacacgataa

gagcagaatgtctattctgcagcagttgagtaaaatgctctgtgaatgtcagctaggcct
20641 -----+-----+-----+-----+-----+-----+ 20700
ctcgtcttacagataagacgtcgtcaactcattttacgagacacttacagtcgatccgga

at ttgagctagtatatagtttaatgtttctttattattttctgtctggatgatctgtttt
20701 -----+-----+-----+-----+-----+-----+ 20760
taaactcgatcatatatcaaattacaaagaaataataaaagacagacctactagacaaaa

actgagagtgaggtgtggtgttagagtcacctactactattgcattacagtatatctctt
20761 -----+-----+-----+-----+-----+-----+ 20820
tgactctcactccacaccacaatctcaggggatgatgataacgtaatgtcatatagagaa

cttttagatctattaatgtttgctttatatactttggagctccaatgttgagtgcaaaga
20821 -----+-----+-----+-----+-----+-----+ 20880
gaaaatctagataattacaaacgaaatatatgaaacctcgagggtacaactcacgtttct

tacttatatcttcttgctgaattgacctctttatcattatatagtaaccttctttgcctc
20881 -----+-----+-----+-----+-----+-----+ 20940
atgaatatagaagaacgacttaactggggaaatagtaatatatcattggaagaaacggag

tttgacagccttgattcacagtctgttttatctgatgtaagtatagctactcctgttctt
20941 -----+-----+-----+-----+-----+-----+ 21000
aaactgtcggaaactaagtgtcagacaaaatagactacattcatatcgatgaggacaagaa

ttttggtttccagttgcttggaaatgtcttttttccacctttaaacttccagtatttttat
21001 -----+-----+-----+-----+-----+-----+ 21060
aaaaccaaaggtcaacgaaccttacagaaaaaaggtggggaattgaaggtcataaaaaata

```

Figure 1 – page 29

```

aagtaaagtaggtttctttaggcagcatataatttgggtcccatTTTTgtatccattcag
21061 -----+-----+-----+-----+-----+-----+ 21120
ttcatttcatccaagaacatccgtcgtatattaaccagggtaaaaacataggtaagtc

ccactctattcctTTTTTTTTgggggggggtcccaagttttattcaagaactcataccaaa
21121 -----+-----+-----+-----+-----+-----+ 21180
ggtgagataaggaaaaaaaaacccccccaagggttcaaaataagttcttgagtatggttt

tattccagataaaataaatttttattcttcaccttctcctcttctTTTTccagggttaatct
21181 -----+-----+-----+-----+-----+-----+ 21240
ataagggtctatttatttaaaaatagaagtggaaggaggagaagaaaaagggtccaattaga

ggaattaacgtcattcataataactctTTTTgctgttagcaactacacacaacaaatcac
21241 -----+-----+-----+-----+-----+-----+ 21300
ccttaattgcagtaagtattattgagaaaaacgacaatcgttgatgtgtgtgttttagtg

atagattattcttcaaataTTTTTTgggtgagatatttcaaataccttttgaaaaaggta
21301 -----+-----+-----+-----+-----+-----+ 21360
tatctaataagaagtttataaaaaaccactctataaagtttatggaaaacctTTTTccat

cctcagaagtcacagtgatcttgctgttgctcctttcgatggttataatgctccaccaag
21361 -----+-----+-----+-----+-----+-----+ 21420
ggagtcttcagtgtcactagaacgacaacgaggaaagctaccaatattacgagggtggttc

attcccagcttttccattcactttaatcctctcttgcaaaaactgctcaaaattggcagc
21421 -----+-----+-----+-----+-----+-----+ 21480
taagggtcgaaaaggtaagtgaaattaggagagaacgTTTTtgacgagttttaaccgtcg

atctatgattccattttctacaagggtgggtacagtcgaagagtgaacatcataacctgctt
21481 -----+-----+-----+-----+-----+-----+ 21540
tagatactaaggtaaaagatgttccacccatgtcagttctcacttgtagtattggacgaa

ctTTTTTTgcctctctttgccacaagctTTTTcacagcactatgcctcttaattggagaa
21541 -----+-----+-----+-----+-----+-----+ 21600
gaaaaaacggagagaaaacggtgttcgaaaaagtgtcgtgatacggagaattaacctctt

ttgagtccatttacatttagtgttattattgatacataaagacttaacattTTTTtaaat
21601 -----+-----+-----+-----+-----+-----+ 21660
aactcaggtaaatgtaaatcacaataataactatgtatttctgaattgtaaaaaaattta

tgatacataattgatgtagctattttggggcggttcagtgtgataatttaatacattcatat
21661 -----+-----+-----+-----+-----+-----+ 21720
actatgtattaactacatcgataaaaccccgcaagtacactattaattatgtaagtata

aatttgtaaagattaaattagtgtaattgggatacctatcaccttcaatatttgtctttt
21721 -----+-----+-----+-----+-----+-----+ 21780
ttaaacatttctaatttaatacacattaaccctatggatagtggaagttataaacagaaaa

cttttctTTTTTTTTctgtgagatggagttttgctTTTTTTgcccagggtggagtgcaat
21781 -----+-----+-----+-----+-----+-----+ 21840
gaaaagaaaaaaaaagacactctacctcaaaacgaaaaaacgggtccgacctcacgtta

```

Figure 1 – page 30

21841 ggcgcaatctcgggtcactgcaacctccacctcccgggttcaagcaattctcctgcctca 21900
-----+-----+-----+-----+-----+-----+
ccgcgttagagccgagtgacgttggaggtggagggcccaagttcggttaagaggacggagt

21901 gcctcccgagtagctgggattacaggcatgcaccaccatgctcagctaattttgtatttt 21960
-----+-----+-----+-----+-----+-----+
cggaggggtcatcgaccctaattgtccgtacgtggtggtacgagtcgattaaaacataaaa

21961 tagtagagacgggggttttaccatgttgggtcaggctggtctcgaactcctgacctcaggtg 22020
-----+-----+-----+-----+-----+-----+
atcatctctgccccaaaatggtacaaccagtcgaccagagcttgaggactggagtccac

22021 atccactcgccctggcctaccaaagtgtctgggattataggcatgagccaccacacctggc 22080
-----+-----+-----+-----+-----+-----+
taggtgagcgggaccggatggtttcacgaccctaatatccgtactcgggtggtgtggaccg

22081 cctgtcttttctttatgttggaaacattcaaattattctcttcttagctattttgaaatat 22140
-----+-----+-----+-----+-----+-----+
ggacagaaaagaaatacaacctttgtaagtttaataagagaagatcgataaaactttata

22141 acaatatattattgtaaactagtcactttactgatatatcaaactaggtcttattttct 22200
-----+-----+-----+-----+-----+-----+
tgttatataataacatttgatcagtgaaatgactatatagtttgtgatccagaataaaga

22201 ttcacaaaccctatatatatatatatatatatatatattttttttttttttttttt 22260
-----+-----+-----+-----+-----+-----+
aagtagtttgggatatatatatatatatatatatataaaaaaaaaaaaaaaaaaac

22261 agacggagtctcgtctgtctcgtctgtcgtcgccaggctagagtgcagtggcacaatctc 22320
-----+-----+-----+-----+-----+-----+
tctgcctcagagcgcagacagagcgcagacagcgggtccgatctcacgtcacgtggttagag

22321 ggcccactgcaagctccgcctcccgggttcatgccattctcctgcctcagcgccccgagt 22380
-----+-----+-----+-----+-----+-----+
ccgggtgacgttcgagggcggagggcccaagtacggttaagaggacggagtcgcgggggtca

22381 agctgggactacaggtgcctgccaccatgcccggttaattttttgtattttttagtagaga 22440
-----+-----+-----+-----+-----+-----+
tcgaccctgatgtccacggacgggtggtacgggccgattaaaaaacataaaaatcatctct

22441 cgggggttttaccatgttagccaggatggtctcaatctcctgaccttgatccaccacc 22500
-----+-----+-----+-----+-----+-----+
gccccaaaatggtacaatcggtcctaccagagttagaggactggaacactaggtgggtgg

22501 tcggcctcccaaagtgtctgggattacaggcttgagccaccgtgcccgccaaaccctata 22560
-----+-----+-----+-----+-----+-----+
agccggaggggtttcacgaccctaattgtccgaactcgggtggcacgggccgggttgggat

22561 ttataaccattaatcaacttctctttatctccccattctgtaccctttctggcctttg 22620
-----+-----+-----+-----+-----+-----+
aaatattggttaattagttgaagagaaatagagggggtaagacatgggaaagaccggaac

Figure 1 – page 31

22621	gtaacctatcaatatactctctatctttaatgagttccacttttttttagcttccacatatca -----+-----+-----+-----+-----+-----+-----+ 22680 cattgatagttatatgagagatagaattactcaagggtgaaaaaaatcgaagggtgatagt
22681	gtgagaacatatgatatttgtctttctgtgtttgccttatttctcttaacatgacctgca -----+-----+-----+-----+-----+-----+-----+ 22740 cactcttgtatactataaacagaaagacacaaacggaataaagagaattgtactggacgt
22741	gttccatgcatcttgcgtgcaaatgacaggatttccttctgttttaaaatctgaatagtat -----+-----+-----+-----+-----+-----+-----+ 22800 caagggtacgtagaacgacggtttactgtcctaaaggaagacaaaatttttagacttatcata
22801	tccatttgttatatatgccacgttttcctcatccattcatccattgctggatgcttaggt -----+-----+-----+-----+-----+-----+-----+ 22860 aggtaacacatatatacgggtgcaaaaggagtaggtaagtaggtaacgacctacgaatcca
22861	tgattccatatcttgggtatttgtgattaatgctgcagtcacattaggagtgcagatatt -----+-----+-----+-----+-----+-----+-----+ 22920 actaagggtatagaaccaataacactaattacgacgtcagttgtaatcctcacgtctataa
22921	tccttgacatactgatttcatttcattcccttccttcccttgctgtctgctgccttc -----+-----+-----+-----+-----+-----+-----+ 22980 agggactgtatgactaaagtaaagtaaggggaaggggaaggggacggacagacggacggaag
22981	cttccttccttccttccttccttcctttcttccttccttccttccttccttcctccacc -----+-----+-----+-----+-----+-----+-----+ 23040 gaaggaaggaaggaaggaaggaaggaaggaaggaaggaaggaaggaaggaagggagggtgg
23041	ccccccgcccccttcagatggaatctggctctgtcgcccaggctggagtgcagtggcgca -----+-----+-----+-----+-----+-----+-----+ 23100 ggggggcggggaaagtctaccttagaccgagacagcgggtccgacctcacgtcaccgcgt
23101	atctcagctcactacaacctccgcctcctgggttcaagcaattcttctgcctcagcctcc -----+-----+-----+-----+-----+-----+-----+ 23160 tagagtcgagtgatggttgaggcgaggaccacaagttcggttaagaagacggagtcggagg
23161	cgagtagctgggattacgggcatgtgccgccatacccagctaatttttttgtatttttag -----+-----+-----+-----+-----+-----+-----+ 23220 gctcatcgaccctaatgcccgtaacggcggtatgggtcgattaaaaaaacataaaaatc
23221	tagaggcagggttttaccatattggccaggctgggtctcgaactcctgacctcatgatcca -----+-----+-----+-----+-----+-----+-----+ 23280 atctccgtcccaaaatggtataaccgggtccgaccagagcttgaggactggagtactaggt
23281	cctgcctcagcctcccaaagtgtctgggttacataggtgtgagccaccgtacacagccag -----+-----+-----+-----+-----+-----+-----+ 23340 ggacggagtcggaggggtttcacgaccctaattgtatccacactcggtggcatgtgtcggtc
23341	tttcattttcttttctttttttttttttttttttttgagacggagtcctcgctctgttgccaggc -----+-----+-----+-----+-----+-----+-----+ 23400 aaagtataaaagaaaagaaaaaaactctgcctcagagcgagacaacgggtccg

Figure 1 – page 32

tggagtgctggagtgcagtggcacgatctcggctcactgcaagctccacctccccgggttc
23401 -----+-----+-----+-----+-----+-----+ 23460
acctcacgacctcacgtcacgtgctagagccgagtgcgttcgaggtggagggcccaag

acaccattctcctgcctcagcctcccaagtagctgggacaacaggcgctgccactatgt
23461 -----+-----+-----+-----+-----+-----+ 23520
tgtggtaagaggacggagtcggaggggttcacgaccctgttgtccgcgacggtgataca

ccggctaattttttgtatttttttagtagagatggggtttcactgtgttagccaggatgg
23521 -----+-----+-----+-----+-----+-----+ 23580
ggccgattaaaaaacataaaaaaatcatctctaccccaaagtgcacacaatcggtcctacc

tctcgatctcctgaccttgtgatcgccccacctcgccctcccagagtgcgtgggattacag
23581 -----+-----+-----+-----+-----+-----+ 23640
agagctagaggactggaacactagccgggtggagccggaggggtctcacgaccctaattgtc

gtgtgagccaccgcgcctggcccattttcttttagatatatacccaagtagggggattgct
23641 -----+-----+-----+-----+-----+-----+ 23700
cacactcgggtggcgcgacccgggtaaaagaaatctatatatgggttcaccccctaacga

gggtcatatagtagttctatttttaattttttgaggaatctccatactgtttcccataat
23701 -----+-----+-----+-----+-----+-----+ 23760
cccagtatatcatcaagataaaaaattaaaaaactccttagaggtatgacaaaggtatta

ggctgtactaattttaattcccaccaacagtggtgaaggattagtgctgggtgaggatgtg
23761 -----+-----+-----+-----+-----+-----+ 23820
ccgacatgattaaatttaagggtgggtgtcacacattcctaatacagaccactcctacac

gagaaaacgatacttctgggcattttttcttctattgagactaaagttgcaactcttagt
23821 -----+-----+-----+-----+-----+-----+ 23880
ctcttttctgatgaagaccgcgtaaaaaagaagataactctgatttcaacgttgagaatca

atTTTTTTTTtatactacccttttaggaaggtgaaattgttgaagtggatgaagaaacagca
23881 -----+-----+-----+-----+-----+-----+ 23940
taaaaaaaaaatgatgggaaatccttccactttaacaacttcacactacttctttgtcgt

E G E I V E V D E E (I) A -

gctatcttgaagaattcaagatttgctcaagattttctgatcagaccaattggagagaag
23941 -----+-----+-----+-----+-----+-----+ 24000
cgatagaacttcttaagttctaaacgagttctaaaagactagtctgggttaacctctcttc

A I L K N S R F A Q D F L I R P I G E K -

ttgccaacatctggaggctgttctgctttggagttaaagggttagtttggtttcactacc
24001 -----+-----+-----+-----+-----+-----+ 24060
aacggttgtagacctccgacaagacgaaacctcaatttccaatcaaaccgaaagtgatgg

L P T S G G C S A L E L K

tgagagaactattttatttattttttttagatggagtcctctctctgtcaccagactg
24061 -----+-----+-----+-----+-----+-----+ 24120
actctcttgataaaataaataaaaaactctacctcagagagagacagtggggtctgac

Figure 1 – page 33

gagtgcagtggtgtgatcttggctcactgcaacctccgcctcctgggttcaagcaattct
24121 -----+-----+-----+-----+-----+-----+ 24180
ctcacgtcaccacactagaaccgagtgcgttggaggcggaggaccaagttcgtaaaga

ccctgcctcagcctcccgattagctaagattacaggcaccaccaccacgcccggctaatt
24181 -----+-----+-----+-----+-----+-----+ 24240
gggacggagtcggagggttaattcgattctaattgtccgtgggtgggtgctgggcccatta

ttttgtgttttttagtagagatggggtttcgccatgttggccaggctggtcttgaactcc
24241 -----+-----+-----+-----+-----+-----+ 24300
aaaacacaaaaaatcatctctaccccaaagcgttacaaccggtccgaccagaacttgagg

tgacctcaggttaaccacctgcctcagtcctcccaaagtgcgtgggattacaggcgtgagcc
24301 -----+-----+-----+-----+-----+-----+ 24360
actggagtcatttgggtggacggagtcagagggtttcacgacctaatgtccgcactcgg

actgtgcccgccagtatgcatgggtctcttgaggcgcacttctcttgctgggtcaaattgtt
24361 -----+-----+-----+-----+-----+-----+ 24420
tgacacgggcccgtcatagctaccagagaactccgcgtgaagagaacgaccagtttaca

gttagacggttatataaccagttaaacgccaccattttgctcttaattgtgcatgcttgag
24421 -----+-----+-----+-----+-----+-----+ 24480
caatctgccaatatatggtcaatttgccgtggtaaaacggagaattacacgtacgaactc

cccacttgcccaactcccgagatcttatcggaagctgctgatcaccagtttcagggtgtt
24481 -----+-----+-----+-----+-----+-----+ 24540
gggtgaacgggttgagggtctagaatagcccttcgacgactagtggtcaaagtcacaa

tctgtttattgggagacttcctttccctgggtactgtctgtgactaattatgattttcgag
24541 -----+-----+-----+-----+-----+-----+ 24600
agacaaataaccctctgaaggaaagggaccatgacagacactgattaataactaaaagctc

agacagttaacaaccacctgatcatcacctaattgatcgctgacattcctgggtggagtgcg
24601 -----+-----+-----+-----+-----+-----+ 24660
tctgtcaattgttgggtggactagtagtggtactagcggactgtaaggaccacctcagc

gcgcggggagccctctcctgccctgctcacgcctgactagctattatacctgctttaaca
24661 -----+-----+-----+-----+-----+-----+ 24720
cgcgccctcgggagaggacgggacgagtgccgactgatcgataatatggacgaaattgt

agttctccaaaattcagagacctttcgtgagtattctgattttataataaaaatagttatt
24721 -----+-----+-----+-----+-----+-----+ 24780
tcaagaggttttaagtctctggaaagcactcataagactaaaatatttttatcaataa

tgcataagtttagtaagagtcttttctctcaaacaggacaattggagacacttgggttat
24781 -----+-----+-----+-----+-----+-----+ 24840
acgtattcaaatcattctcagaaaagagagttttgtcctgttaacctctgtgaaccaata

tttaccaaagctttgactggaataacattttaggttaaagttccagcaaagccaacttga
24841 -----+-----+-----+-----+-----+-----+ 24900
aaatgggtttcgaaactgaccttattgtaaacatccatttcaaggctcgtttcggttgaact

Figure 1 – page 34

```
aaagagcctatctggccaaactcttgctggacttcatgcaaatgatcaggcaaagttaa
24901 -----+-----+-----+-----+-----+-----+ 24960
tttctcggatagaccggtttgagaacgacctgaagtacgtttactagtccgtttcaaatt

taagcctaaaaattttttgcacataaattggccttactataatttgtctttagtataaa
24961 -----+-----+-----+-----+-----+-----+ 25020
attcggatttttaataaaaacgtgtatttaaccggaatgatattaacagaaatcatattt

aggaggagctgggtgcagaagttcacactcataatcccagcactttgggaggctgagaca
25021 -----+-----+-----+-----+-----+-----+ 25080
tcctcctcgacccacgtcttcaagtgtgagtattagggctcgtgaaaccctccgactctgt

ggcagatcacttgaggccaggagtttgacaccagcctgggtaacatgttgaaaccctgtc
25081 -----+-----+-----+-----+-----+-----+ 25140
ccgtctagtgaactccggtcctcaaactgtgggtcggaccattgtacaactttgggacag

tctacaaaaatacaaaaaaattatctgggtatggtggtgcatgctggtagtccagtta
25141 -----+-----+-----+-----+-----+-----+ 25200
agatgggtttttatgtttttttaatagaccataaccaccacgtacgaccatcaaggtcaat

ctcaagaggctgagatgggaggattgcttgagcccaggagggtggagggaatgagccaa
25201 -----+-----+-----+-----+-----+-----+ 25260
gagttctccgactctaccctcctaacgaactcgggtccctccacctccggttactcggtt

gactgcaccactgcactccagcctgggcaacagagtgagactctgtctcaaaaaaaaaa
25261 -----+-----+-----+-----+-----+-----+ 25320
ctgacgtggtgacgtgaggtcggaccggtgtctcactctgagacagagttttttttttt

aaaaaaaaaaaaaaaaaagaagaaggctagagagagaaatggtttcaaaggaaaactataac
25321 -----+-----+-----+-----+-----+-----+ 25380
tttttttttttttttttttcttctccgatctctctctttaccaaagtttcttttgatattg

acttgttactagatttccagcctggacttttgtttttgagtgcataattgaatcattaatt
25381 -----+-----+-----+-----+-----+-----+ 25440
tgaacaatgatctaaggtcggacctgaaaacaaaaactcacgtataacttagtaattaa

atctcttggttacaataaccctctaaagataaaccaggttataatttttcttcatgtttt
25441 -----+-----+-----+-----+-----+-----+ 25500
taaagaaccgatgttattgggagatttctatttgggtccaatattaaaaagaagtacaaaa

tagtttgtgccctaagtggaataggttccttattctgttctgacacacgaatactctttt
25501 -----+-----+-----+-----+-----+-----+ 25560
atcaaacacgggattcaccttatccaaggaataagacaagactgtgtgcttatgagaaaa

gactgtcatattattaatgttatttatagctccttgttttacttccaaagaaaccagaat
25561 -----+-----+-----+-----+-----+-----+ 25620
ctgacagtataataattacaataaatatcgaggaacaaaatgaagggttcttttggtctta

catgatatttctaagggttagagaatccccggttggaaatcccactgggtcctaactctgctt
25621 -----+-----+-----+-----+-----+-----+ 25680
gtactataagattccaatctcttagggggcacaaccttagggtgaccaggattagacgaaa
```

Figure 1 – page 35

```

tcactgcaaattccgtgctgctaaaattatataagcactcttctctaggcccaggacct
25681 -----+-----+-----+-----+-----+-----+ 25740
agtgcggtttaaggcacgcgattttaatatattcgtgagaagagatccgggtccctgga

atcacacaaaaggtaggtgtgtgagactgtaagggccagttttgagagaattatttcaga
25741 -----+-----+-----+-----+-----+-----+ 25800
tagtgtgttttccatccacacactctgacattcccgtcaaaactctcttaataaagtct

ctctccaaatcaaaaatgggcacacagatgcataaacagctggtaaaataagggactctg
25801 -----+-----+-----+-----+-----+-----+ 25860
gagagggttagtttttaccggtgtgtctacgtatttgtcgaccattttattccctgagac

cctcctgggttattatgtgtgtggcaccttttcatccatcccaatcataaagaatttctt
25861 -----+-----+-----+-----+-----+-----+ 25920
ggaggaccaataatacacacaccgtggaaaagtaggtagggttagtatttcttaagga

gcttctcgtagaatgaaaagaaaattattactgagaggatataaaggtagctcatgtcaa
25921 -----+-----+-----+-----+-----+-----+ 25980
cgaagagcatcttactttttcttttaataatgactctcctatatttccatggagtacagtt

agcctcctaggtttaatactctgagttatgagatttatgcagataacatatatatttttt
25981 -----+-----+-----+-----+-----+-----+ 26040
tcggaggatccaaattatgagactcaatactctaatacgtctattgtatatataaaaaa

aaaattttagaacaggccaggcacagtgggtcaagcctgtaatcctagcactttgggagg
26041 -----+-----+-----+-----+-----+-----+ 26100
ttttaaaatcttgtccggtccgtgtcaccgagttcggacattaggatcgtgaaaccctcc

ccaaggtgggcagattgcctgagctcaggagttcaagaccagcctgggcaacatgggtgac
26101 -----+-----+-----+-----+-----+-----+ 26160
ggttccaccctctaacggactcgagtcctcaagttctggtcggaccctgtgtaccactg

accccatctctactaaaatacaaaaaataaattagatgggcatgggtggcgtgcgcctgta
26161 -----+-----+-----+-----+-----+-----+ 26220
tggggtagagatgattttatgtttttttatttaattctaccgtaccaccgcacgcggacat

gtcccagctacttgggaggctgaggcaggagaattgcttgagcccgggaggcggaggttg
26221 -----+-----+-----+-----+-----+-----+ 26280
cagggtcgatgaaccctccgactccgtcctcttaacgaactcgggccctccgcctccaac

caatgagacgagattgagatggcgccactgcactccagcctggcaacagagtgcagactct
26281 -----+-----+-----+-----+-----+-----+ 26340
gttactctgctctaactctaccgcggtgacgtgaggtcggaccgttgtctcactctgaga

gtctcaaaataaataaataaataaataaataaataaataaataaataaataaatttttagaa
26341 -----+-----+-----+-----+-----+-----+ 26400
cagagttttatttatttatttatttatttatttatttatttatttatttatttataaatctt

caaattactgaaagaccacaaaaaaaaaactgtagcacacggaagtctctaaattcctt
26401 -----+-----+-----+-----+-----+-----+ 26460
gtttaatgactttctgggtgttttttttttttgacatcgtgttgcttcagagatttaagga

```

Figure 1 – page 36

tagcttaaaagggttttaacagtgccttatgttttgatatagctaattgctgtaagtctgtaa
26461 -----+-----+-----+-----+-----+-----+ 26520
atcgaattttccaaaattgtcacgaatacaaaacatatcgattaacgacattcagacatt

ctaaaaccaagattacagtagcacaatgcatagaagttaaagataagtcaattttttaac
26521 -----+-----+-----+-----+-----+ 26580
gattttgggttctaattgtcatcgtgttacgtatcttcaatttctattcagttaaaaaattg

ctcacctttggctttttgtttgttggttttatattaagaaattttaagggtttattaat
26581 -----+-----+-----+-----+-----+ 26640
gagtggaaaccgaaaaacaacaaccgaaaatataattctttaaaattcccaaataatta

gcctatccacatccattcccatctggcctagaactttcttttttttgggtgggggaggggg
26641 -----+-----+-----+-----+-----+ 26700
cggataggtgtaggtaagggttagaccggatcttgaaagaaaaaaaaccacccctcccc

acggagtcttcctctgtcaccagggtggggtgcagtggcgatctcatctcactgcaa
26701 -----+-----+-----+-----+-----+ 26760
tgcctcagaaggagacagtgggtccgacccacgtcaccgcactagagtagagtgcgtt

cctccgcctcacaggttcaagtattctcctgcctcagcctcctgagtagctgtaattac
26761 -----+-----+-----+-----+-----+ 26820
ggaggcggagtgtccaagttcactaagaggacggagtgcggaggactcatcgacattaatg

aggcatgtgccaccatgcctggctaattttttttttttttttttttttttttttccgagatg
26821 -----+-----+-----+-----+-----+ 26880
tccgtacacggtggtacggaccgattaaaaaaaaagaaaaaaaaaaaaaaaaaggctctac

gagtcttgctctgttgcccaggctggagtgcagtgggtgcgacctcggtcactgcaacct
26881 -----+-----+-----+-----+-----+ 26940
ctcagaacgagacaacgggtccgacctcacgtcaccacgctggagccgagtgcgttggga

ctgcctcccaagttcaagcgattcttctgcctcagcctccagagtagatgggactacagg
26941 -----+-----+-----+-----+-----+ 27000
gacggagggttcaagttcgctaagaagacggagtgcggaggtctcatctaccctgatgtcc

tgcggtgccaccatgcctggctaattttttattttttttttttttagtagagatgggggttcat
27001 -----+-----+-----+-----+-----+ 27060
acgcacgggtggtacggaccgattaaaaataaaaataaaaaaatcatctctaccccaaagta

catattggccaggctggtctcgaactccttacctcatgatccaccaccttggcctccca
27061 -----+-----+-----+-----+-----+ 27120
gtataaccggtccgaccagagcttgaggatggagtactaggtgggtggaaccggagggt

aagtgtgggattataggcatgagccactgtgccagccctaattcgtatttttagtaga
27121 -----+-----+-----+-----+-----+ 27180
ttcacgaccctaatatccgtactcgggtgacacgggtcgggattaagcataaaaaatcatct

gacagggtttcaccatgttgggtcaggctgggtctcaaactgctgatcttaggtgaccaacc
27181 -----+-----+-----+-----+-----+ 27240
ctgtcccaaagtgggtacaaccagtccgaccagagtttgacgactagaatccactgggttg

Figure 1 – page 37

```

tgtctcggcctcccaaagtgtgagattacaggggtgaaccaccatgcctgggtctggcct
27241 -----+-----+-----+-----+-----+-----+ 27300
acagagccggaggggtttcacgactctaattgtcccccacttggtggtacggaccagaccgga

agaactttcaaattcgcctatgtgtcttttggctctaagcccccttgaccataggggtccca
27301 -----+-----+-----+-----+-----+-----+ 27360
tcttgaaagtttaagcgatacacagaaaaccgagattcggggaactggtatccccagggt

ccaaggcacaagatggaccaggggaaggcagctgtgccaccccagcaacacagtgagata
27361 -----+-----+-----+-----+-----+-----+ 27420
ggttcctgtgttctacctgggtcccttcctgcgacacgggtggggtcggtgtgtcactctat

aaataaaaagtttggtgaccattgatgttgccctctgacaaatctaggccagaatgaggaga
27421 -----+-----+-----+-----+-----+-----+ 27480
tttatttttcaaaccactggtaactacaacggagactgttttagatccggtctttacgcctct

aagtaaatcaaaaaataaaattctaggccgggcgcggtgggtcacacctgtaatcccagca
27481 -----+-----+-----+-----+-----+-----+ 27540
ttcatttagtttttatttttaagatccggcccgcgccaccgagtggtggacattaggggtcgt

ctttgggaggccgaggcgggtggatcacaagggtcaggagttcgagaccagcctggccaac
27541 -----+-----+-----+-----+-----+-----+ 27600
gaaaccctccgggtccgcccacctagtgttccagtcctcaagctctggtcggaccgggttg

atagtgaacccccgtctctactaaaaataaaaaatcagccaggcgtgggggcaggcacct
27601 -----+-----+-----+-----+-----+-----+ 27660
tatcactttggggcagagatgattttttatttttttagtcgggtccgcacccccgtccgtgga

gtagtcccagctacttgggaggctgaggcaggagaatttccttgaacctgggaggtggagg
27661 -----+-----+-----+-----+-----+-----+ 27720
catcagggtcgatgaacctccgactccgtcctcttaaggaacttggaacctccacctcc

ttgcagtgaaccgagatcatgccactgcactctaacctgggcgacagagcgagactccat
27721 -----+-----+-----+-----+-----+-----+ 27780
aacgtcactcggctctagtacggtgacgtgagattggaccgctgtctcgctctgaggtat

ctcaaaaaataaaaaaaaaataaaaaataaaaaataaaaaataaaattataaacctcaac
27781 -----+-----+-----+-----+-----+-----+ 27840
gagttttttattttttttttattttttttattttttttatttttttttaattttgggagttg

catctgaacggaccctcctgtcgggcaaaggcattgcaaagttatcctaaaaaactagt
27841 -----+-----+-----+-----+-----+-----+ 27900
gtagacttgccctggggaggacagcccgtttccgtaacgtttcaataggattttttgatca

tcaggtcacgaagggaaggagaagtttgacatgcctcattattccctcctcccttttgg
27901 -----+-----+-----+-----+-----+-----+ 27960
agtccagtgcctcccttcctcttcaaacctgtacggagtaataagggaggaggaaaacc

aattcagacactgctgaccagcattaccattaaaacagatcttaagactgatagaacaga
27961 -----+-----+-----+-----+-----+-----+ 28020
ttaagtctgtgacgactgggtcgtaatggtaattttgtctagaattctgactatcttgtct

```

Figure 1 – page 38

```

ctcttttaaatctggaagaacatttacaatctattctctctgtagcctgctgcctagag
28021 -----+-----+-----+-----+-----+-----+ 28080
gagaaatttagaccattctttgtaaatgtagataagagagacatcggacgacggatctc

gcttcactctgcatgataaaaccttggctctccacaatctcttatcataacctagacactcc
28081 -----+-----+-----+-----+-----+-----+ 28140
cgaagtagacgtactattttgaaccagaggtgtagagaatagtattggatctgtgagg

cttctattgatcccagggtctttggattataactcaaccaattgccaatcacaaaatcttt
28141 -----+-----+-----+-----+-----+-----+ 28200
gaagataactaggggtccagaaacctaattaggttggttaacgggttagtgtttagaaa

gaatctgcctgtgacctggaaatccccacttccagttgtcccacgtttctggctctgaacc
28201 -----+-----+-----+-----+-----+-----+ 28260
cttagacggacactggacctttaggggtgaaggtcaacaggggtgcaaagaccagacttgg

aatgtacatattatatgtattgattgatgtcttatgtctctctctaaaatgtataaaaccaa
28261 -----+-----+-----+-----+-----+-----+ 28320
ttacatgtataataacataactaactacagaatacagagagattttacatattttgggtt

gttataggggtgaccactttgggcacatgtttgcagatctcctgagggctgtgtcacaggc
28321 -----+-----+-----+-----+-----+-----+ 28380
caatatcccactgggtgaaaccgtgtacaaacgtctagaggactccgacacagtgtccg

cattggctcacttatttggctcagaataaatctttttaagtattttagagtttgacccttt
28381 -----+-----+-----+-----+-----+-----+ 28440
gtaaccagtgaataaaccgagtcttatttagaaaaattcataaaatctcaaactgggaaa

ttgttgacaatgtttaacatcctacagttatgacaccctaatttgaatttatacagctta
28441 -----+-----+-----+-----+-----+-----+ 28500
aacaactgttacaaattgtaggatgtcaatactgtgggattaaacttaaataatgtcgaat

acttcaataacataactaaaattctgctccttttaaagcttggttctcaactattttagttct
28501 -----+-----+-----+-----+-----+-----+ 28560
tgaagttattgtatgattttaagacgaggaaatttcgaacaagagttgataaaatcaaga

tttttttttttttccattgacagagtttctactctatcaccagggtggagtgcagtggca
28561 -----+-----+-----+-----+-----+-----+ 28620
aaaaaaaaaaaaaggtaactgtctcaaagttagatagtggttccgacctcacgtcacctgt

cgatcttggctcactgcagcctctgcctcctgggttcaagtgattctcctgccccagcct
28621 -----+-----+-----+-----+-----+-----+ 28680
gctagaaccgagtgacgtcggagacggaggaccaagttcactaagaggacgggggtcgga

cacaagtagctgggattacaggtgcgccagccaccatgcctggctaattttttgtatttt
28681 -----+-----+-----+-----+-----+-----+ 28740
gtgttcatcgaccctaattgtccacgcggtcggtggtacggaccgattaaaaaacataaaa

tagtagaggcggggtctcatcatgttggccagcctgggtctcgaactcctgacatcagatg
28741 -----+-----+-----+-----+-----+-----+ 28800
atcatctccgccccagagtagtacaaccgggtcggaaccagagcttgaggactgtagtctac

```

Figure 1 – page 39

atccaccagcctcggcctcccaaagtgctgggattacaggtgtgaactaccacgcccggg
28801 -----+-----+-----+-----+-----+ 28860
taggtggtcggagccggagggtttcacgaccctaattgtccacacttgatgggtgcgggccc

tctttctagttcttgatatcacaaaattatgtctttattcattttgtgccccaaaacgt
28861 -----+-----+-----+-----+-----+ 28920
agaaagatcaagaactatagtgttttaatacagaaataagtaaaacacgggggttttgca

aaactaataattattttaaatgcattgggtctcttaaatacatgtggaaaacaaaaagtaga
28921 -----+-----+-----+-----+-----+ 28980
tttgattattaataaaatttacgtaaccagagaatttagtacaccttttgtttttcatct

gttacaaccattgtttacaataatactagcttttgccgggtgtgggtggcttacgccaccag
28981 -----+-----+-----+-----+-----+ 29040
caatgtttggttaacaatgttattatgatcgaaacggcccacaccaccgaatgcggtggtc

gtgatccaccacctaggttgccagcctgggcaacaagagcacaactccatctcaaaaa
29041 -----+-----+-----+-----+-----+ 29100
cactaggtgggtggatccaacgggtcggaccctgtgttctcgtgttgaggtagagtttt

aacaaaaacaaataaacaacaaaaccccaataataaccagcttttttttttttttgagacag
29101 -----+-----+-----+-----+-----+ 29160
ttgtttttgtttatgttttttgggggttattatggtcgaaaaaaaaaaaaaactctgtc

agcttcgctcttgttgcccaggctagagtgaatgggtgcggtcttggtccaccgcaacct
29161 -----+-----+-----+-----+-----+ 29220
tcgaagcgagaacaacgggtccgatctcacgttaccacgccagaaccgagtggtggtgga

ccgcctcctgggttcaagcgggtctcctgcctcagcttcccaagtagctgggattacagg
29221 -----+-----+-----+-----+-----+ 29280
ggcggaggaccgaagtccgccaaggaggacggagtcgaagggttcacgaccctaattgtcc

tgcgccaccatcacagccggctaatttttgtatttttagtagagacgggggttttaccatgt
29281 -----+-----+-----+-----+-----+ 29340
acgcgtggtagtgtcggccgattaaaaacataaaaaatcatctctgccccaaaatggtaca

tggtcaagctgggtctcaaaactcctgacctcaggtaatccacctgccttggcctcccaaag
29341 -----+-----+-----+-----+-----+ 29400
accagttcgaccagagtttgaggactggagtcattaggtggacggaaccggaggggttc

tgctgggattacaggcatgagccaccgtgcccggccaatcccagcactttgggagggtga
29401 -----+-----+-----+-----+-----+ 29460
acgaccctaattgtccgtactcgggtggcacgggcccgggttagggctgtgaaaccctccgact

ggctggcagaccacttgaggtcaggaggtcaagaccagcctggccaacatgctgaaaccg
29461 -----+-----+-----+-----+-----+ 29520
ccgaccgtctgggtgaactccagtcctccagttctgggtcggaccgggtgtacgactttggc

tgtctgtactaaaaatacaaaaattagctgggcacgggtggcaaatgcctataatcccagt
29521 -----+-----+-----+-----+-----+ 29580
acagacatgatttttatgtttttaatcgaccctgcccaccgtttacggatattaggggtca

Figure 1 – page 40

tacttggggggctgaggcaggaggatcgttttgagcccggaatgtggaggctgtagtgag
29581 -----+-----+-----+-----+-----+-----+ 29640
atgaaccccccgactccgtcctcctagcaaaactcgggccctacacctccgacatcactc
ccgtgatcacaaactgtaccccagcctgggcgacagagcaagaccctgcctcaaaaaaa
29641 -----+-----+-----+-----+-----+-----+ 29700
ggcactagtgtgtgacatggggcggaccgcgtgtctcgttctgggacggagtttttt
aaaaaaaaaagcacaaagctttttgagaaatcactttcaaaaatggtacattttagtt
29701 -----+-----+-----+-----+-----+-----+ 29760
tttttttttttcgtgtttcgaaaaactcttttagtgaaagtttttaccatgtaaacaatcaa
ggggaaggttaatcgaacctaaaaatataagaatcctggaccccaaacctggagccagta
29761 -----+-----+-----+-----+-----+-----+ 29820
ccccttccaattagcttggattttatattcttaggacctgggggttttgacctcggtcat
ttaccagcatgaatctaaccaagctcagtatacaagccacctgtagagctaaagagtga
29821 -----+-----+-----+-----+-----+-----+ 29880
aatggtcgtacttagattgggttcgagtcatatgttcggtggacatctcgatttctcact
tttactaggccgggcacggtggcttacgcctgtaatcccagcactttgggagccgaggcg
29881 -----+-----+-----+-----+-----+-----+ 29940
aaatgatccggcccggtgccaccgaatgcggacattagggtcgtgaaaccctcggctccgc
ggtggatcacgaggtcaggagttcaagaccagcctggccaagatggtgaaaccccgctctc
29941 -----+-----+-----+-----+-----+-----+ 30000
ccacctagtgtctccagtcctcaagttctggtcggaccggttctaccactttggggcagag
tactaaaaatacaaaaaaaatttagccgggcgtggtggcatgcgcctgtaatcccagctac
30001 -----+-----+-----+-----+-----+-----+ 30060
atgatttttatgttttttttaatcgcccgccaccacgtagcgggacattagggtcgatg
tccagaggctgaggcagagaattgcttaaacctggaggggagggttgcagtgagccga
30061 -----+-----+-----+-----+-----+-----+ 30120
aggctctccgactccgtctcttaacgaatttggaacctcccgcctccaacgtcactcggtc
gatcgcgccactgcactccagctggggtgacagagtgcagactccatctcaaaaaaaaaa
30121 -----+-----+-----+-----+-----+-----+ 30180
ctagcgcggtgacgtgaggtcgaccccaactgtctcactctgaggtagagtttttttttt
aaaagagtgatttactttctttgctttattaaattcttcagcactctgctattctgactc
30181 -----+-----+-----+-----+-----+-----+ 30240
ttttctcactaaatgaaagaaacgaaataatttaagaagtcgtgagacgataagactgag
ttctgttggtcgaagaaggatgatactttggaaagtagacagatttggttttgagtattc
30241 -----+-----+-----+-----+-----+-----+ 30300
aagacaacaagcttcttccactatgaaaccttcatctgtctaaaccgaaaactcataag
aatccattaaacattttcaaaaatatgtcactgatattttgaaactcctgagagttcattg
30301 -----+-----+-----+-----+-----+-----+ 30360
ttaggtaatttgtaaagtttttatacagtgcataaaaactttgaggactctcaagtaac

Figure 1 – page 41

ataaggaaagctgctggtgagaatcaatattttatttttaaaggcttttatcattctaatt
30361 -----+-----+-----+-----+-----+-----+ 30420
tattcctttcgacgaccactcttagttataaataaaattttccgaaaatagtaagattaa
cttctaaaacctggtttcctaaatactgattataaaagctatcagaaggcgtggtggctc
30421 -----+-----+-----+-----+-----+-----+ 30480
gaagattttggaccaagagatttatgactaataattttcgatagtcctccgcaccaccgag
acgcctgtaatcccagcactttggggaggccgaggcgggtggatcacgaggtcaggagat
30481 -----+-----+-----+-----+-----+-----+ 30540
tgcggaacattagggctgtaaaacccctccggctccgccacctagtgtccagtcctcta
cgagaccatcctggctaacacggtgaaaccccgctctactaaaaatacaaaaaattagc
30541 -----+-----+-----+-----+-----+-----+ 30600
gctctggttaggaccgattgtgccactttggggcagagatgatttttatgttttttaacg
cgggcgtggtggcgggtgcctgtagtcccagctactcgggaggctgaggcaggagaatgg
30601 -----+-----+-----+-----+-----+-----+ 30660
gcccgaccaccgcccacggacatcagggtcgatgagccctccgactccgtcctcttacc
cgtgaacccgggaggcggagcttgacgtgagcagagatcatgccactgcactccagcctg
30661 -----+-----+-----+-----+-----+-----+ 30720
gcacttggggccctccgcctcgaacgtcactcgtctctagtacgggtgacgtgaggctcggac
ggcgacagagttaggctccgtctcaagaaaaaaaaaaatgctatcagaagataatggtt
30721 -----+-----+-----+-----+-----+-----+ 30780
ccgctgtctcactccgaggcagagttctttttttttttacgatagtcctctattacaa
acaagtaaagagggtctttcctcgagctacagtattttcagtgtactctggctttttttt
30781 -----+-----+-----+-----+-----+-----+ 30840
tgttcatttctcccagaaaggagctcgatgtcataaaagtcacatgagaccgaaaaaaa
tttcctttgagacagagtctcgctctgtcaccagggtggagtgcagtggcacgatcttg
30841 -----+-----+-----+-----+-----+-----+ 30900
aaaggaaactctgtctcagagcgagacagtgggtccgacctcacgtcacctgtctagaac
gcttactcctccgcctcctgggttcaaacaattctcctgcctcagcttcccagtagctg
30901 -----+-----+-----+-----+-----+-----+ 30960
cgaatgaggaggcggaggaccaagtttgtaagaggacggagtgaagggtcatcgac
ggactacaggcacacgccaccacgcccggctcattttttgtattttaatagagacggggt
30961 -----+-----+-----+-----+-----+-----+ 31020
cctgatgtccgtgtgcggtggtgcgggccgagtaaaaaacataaaattatctctgcccc
ttcaccgggttgcccaggctggtggtgaactcctgagctcaggcaatccgcccgcctcgg
31021 -----+-----+-----+-----+-----+-----+ 31080
aagtggcccaacgggtccgaccaccacttgaggactcgagtcggttaggcgggaggagcc
cctcccaaagtgtgggatgacaggtgtgagccactgtgccagccactctggctatttt
31081 -----+-----+-----+-----+-----+-----+ 31140
ggagggtttcacgaccctactgtccacactcggtgacacgggtcggtgagaccgataaaa

Figure 1 – page 42

```

31141 ttttaaaaaaggaggttaaatgagtttgcttctgcagatgaccattttctttctgcgtagc 31200
-----+-----+-----+-----+-----+-----+
aaaattttttcctcaatttactcaaacgaagacgtctactggtaaaagaagacgcacgc

31201 tgtccttggttctccctcccagtggtgcgtgcaacacatgtacaggaggttcttgaccttag 31260
-----+-----+-----+-----+-----+-----+
acaggaacaagaggagggtcacacgcacggtgtgtacatgtcctccaagaactggaatc

31261 atataaattgtaaaattccacatatttgaactggtttatcccaacataagggtctcctttc 31320
-----+-----+-----+-----+-----+-----+
tatatttaacatttttaagggtgtataaacttgaccaaatagggtgtattccagaggaaag

31321 tgctttatttcagcctgcagatgtgccaatgtcttttaggtcagtttcaagtttttgaat 31380
-----+-----+-----+-----+-----+-----+
acgaaataaagtgcggacgtctacacggttacagaaatccagtcaaagttcaaaaacttta

31381 gggaataagtgacactgaaggaagattttaataaatgaaacagttgtgtgacctaggaat 31440
-----+-----+-----+-----+-----+-----+
cccttattcactgtgacttccttctaaaattatttactttgtcaacacactggatcctta

31441 ataaccttgctccttagggaaggacattcttatcttttttttttttttcttaacggaag 31500
-----+-----+-----+-----+-----+-----+
tattggaacacgagaatcccttctgtgaagaatagaaaaaaaaaaaaagaattgccttc

31501 acctttatgataaacgctggagtacagacagtacacgcagctggcatgcagggtattgca 31560
-----+-----+-----+-----+-----+-----+
tggaataactatttgcgacctcatgtctgtcatgtgcgtcgacctacgtcccataacgt

31561 tatacttaacatcttgagagtccttctgctttttcttcatcttctttttaatcctgatat 31620
-----+-----+-----+-----+-----+-----+
atatgaattgtagaactctcaggaagacgaaaaagaagtagaagaaaaattaggactata

31621 gcaaaatgtattttgccattaaaacaattgtactattaaaacactgcagcatctggctgg 31680
-----+-----+-----+-----+-----+-----+
cgttttacataaaaacggttaattttgttaacatgataattttgtgacgtcgtagaccgacc

31681 gcgtgggtggctcacacctgtaatcccagcattttgggaggctgaggcgggtggatcactt 31740
-----+-----+-----+-----+-----+-----+
cgcaccaccgagtggtggacattagggctcgtaaaaccctccgactccgcccacctagtgaa

31741 gaggtcaggagttcaacagcagcctgtcctaacatggtgaaacccctctctactaaaaat 31800
-----+-----+-----+-----+-----+-----+
ctccagtcctcaagttgtcgtcggacagattgtaccactttgggggagagatgattttta

31801 acaaaaattagctgggtgtggtggcgggtgcctgtaatcccagctttttggaagactgag 31860
-----+-----+-----+-----+-----+-----+
tgtttttaatcgaccacaccacgcggacattagggtcgaaaaaccttctgactc

31861 gcaggaggatcacctgggaggcagaggttgacgtgagccaagatcgtgccactgcactcc 31920
-----+-----+-----+-----+-----+-----+
cgtcctcctagtggaccctcgtctccaacgtcactcggttctagcacgggtgacgtgagg
```

Figure 1 – page 43

agcctcggcgacaaagggagactccctctcaaaaacaaaaaacaacaaacactgcagc
31921 -----+-----+-----+-----+-----+-----+ 31980
tcggagccgctgtttccctctgagggagagtttttgttttttgttgttttgtgacgtcg

atctgaaatgatgcaaacaggattagggctatggactgtcttaatagtaatggtagtaat
31981 -----+-----+-----+-----+-----+-----+ 32040
tagactttactacgtttgtcctaatacccgatacctgacagaattatcattaccatcatta

agcattaacaaccatagcagtaatatagaggaattaacttttattgaatagttaatatgt
32041 -----+-----+-----+-----+-----+-----+ 32100
tcgtaattgttggtatcgtcattatatctcctaattgaaaataacttatcaattatata

ttaaggcaccctgtcatttagtctctcacaatcaccctattatcttcatttgacagatgg
32101 -----+-----+-----+-----+-----+-----+ 32160
aattccgtgggacagtaaatcaggagtgttagtggggataatagaagtaaactgtctacc

agagactgaggctctgaaagattcatttacaaatccaaagtcatacagctagaaagtgg
32161 -----+-----+-----+-----+-----+-----+ 32220
tctctgactccgagacttttctaagtaaatgtttaggtttcagtatgtcgatctttcacca

gaatttgcaccacatctgattctggagctggcactctaaaccagtgtgctgctccatct
32221 -----+-----+-----+-----+-----+-----+ 32280
cttaaactgtgggtgtagactaagacctcgaccgtgagatttggtcacacgacgaggtaga

ctccatagttgtacttctcatagaatcacaggatgttggtgcaggaaaggactgcttata
32281 -----+-----+-----+-----+-----+-----+ 32340
gaggtatcaacatgaagagtatcttagtgtcctacaaccacgtcctttcctgacgaatat

tctgggtacccacctttcatttccttcaagtcttgagatctttttgaactagaagcatg
32341 -----+-----+-----+-----+-----+-----+ 32400
agacccatggggtggaaagtaaaggaagttcagaactctagaaaaacttgatcttcgtac

catttagaagtgatattgatatcaccatctcctgttggtagatagatcattgagtggaaa
32401 -----+-----+-----+-----+-----+-----+ 32460
gtaaatcttcactataactatagtggtagaggacaaccatctatctagtaactcaccttt

gaagaggggttcaagggattctcccacctcagcctcatagtagccaccacgcccactaat
32461 -----+-----+-----+-----+-----+-----+ 32520
cttctcccaagttccctaagaggggtggagtccgagtatcatcggtgggtgcgggttgatta

ttttatattttcagtagagacggggtttcatcatgttggtccaggctgggtctcgaactcct
32521 -----+-----+-----+-----+-----+-----+ 32580
aaaatataaaagtcatctctgccccaaagtagtacaaccggtccgaccagagcttgagga

gacctcaggtgatccactgccttggcctcccagagtgtgggattactcccagagtacat
32581 -----+-----+-----+-----+-----+-----+ 32640
ctggagtccactaggtgacggaaccggagggtctcacgaccctaataagggtctcatgta

gagccaccgcaccaggccagggcaaaccctttcaagcaggagttccagtatactgagaga
32641 -----+-----+-----+-----+-----+-----+ 32700
ctcgggtggcgtgggtccggtcccggtttgggaaagttcgtcctcaaggtcatatgactctct

Figure 1 – page 44

tggaaatgcaattgatgtgaagtcctagcagtagcaaccagcagagctggccttcttcca
32701 -----+-----+-----+-----+-----+ 32760
acctttacgttaactacacttcaggatcgatcgatcggtcgctcgcaccggaagaaggt
ggcttggagatcctctgccagatgctcatcttaccagatgcaggcagacctcttcatttc
32761 -----+-----+-----+-----+-----+ 32820
ccgaacctctaggagacgggtctacgagtagaatgggtctacgtccgtctggagaagtaag
agaaaggtagacactgaggacagagagaccaaggccagcaggaagtcagtcacttttagt
32821 -----+-----+-----+-----+-----+ 32880
tctttccatctgtgactccctgtctctctgggtccggtcgtccttcagtcagtgaaatca
aaagggtccaccagtctatcagtttcatgaatgtagagtctgtgcctgccttgtaacccc
32881 -----+-----+-----+-----+-----+ 32940
tttcccagggtgggtcagatagtc aaagtacttacatctcagacacggacggaacatgtggg
ctctatttgcagtgaccagaataagtagtaggactgtaaatttatgttataatgaattca
32941 -----+-----+-----+-----+-----+ 33000
gagataaacgtcactgggtcttattcatcatcctgacatttaaatacaatattacttaagt
ttaccattatttaaagtggcatgttcatgcttttttttttttttttggagatggagtctcg
33001 -----+-----+-----+-----+-----+ 33060
aatggtaataaatttcaccgtacaagtagcaaaaaaaaaaaaaaactctacctcagagc
ctctgtcaccaggttggagtgcagtggtgtgatctcagctcactgcaacctccacctcc
33061 -----+-----+-----+-----+-----+ 33120
gagacagtgggtccaacctcacgtcaccacactagagtcgagtgacgttggaggtggagg
taggttcaagtgattctcttgcctcagcctcccagtagctgagactacagacgtgccac
33121 -----+-----+-----+-----+-----+ 33180
atccaagttcactaagagaacggagtcggaggggtcatcgactctgatgtctgcacgggtg
cacaccagctaattttttgtatttttagtagagatgggattttgccatattgccagggc
33181 -----+-----+-----+-----+-----+ 33240
gtgtgggtcgattaaaaaacataaaaatcatctctaccctaaaacgggtataacgggtccg
ttgtctcaaactcctggcctcaggtgatccattggcctcggcctctcaaagtgctgggat
33241 -----+-----+-----+-----+-----+ 33300
aacagagtttgaggaccggagtcactaggttaaccggagccggagagtttcacgacctta
tacaggcgtgagccaccgtgccagaccctgtgctcttgatttcctatctttgtacttgg
33301 -----+-----+-----+-----+-----+ 33360
atgtccgcactcgggtggcacgggtctgggacacgagaactaaaggatagaaacatgaacc
cttttctctggccccactgggtactattgttagaggtatctcatttggaggtgaaaggagg
33361 -----+-----+-----+-----+-----+ 33420
gaaaagagaccgggtgaccatgataacaatctccatagagtaaacctccactttctctcc
ggaaataaatacagcagtccttgtcttttaataaatacagcagtccttatgttactctact
33421 -----+-----+-----+-----+-----+ 33480
cctttatttatgtcgtcagaacagaaaattttatttatgtcgtcagaatacaatgagatga

Figure 1 – page 45

```

ctgagatctgtctggccattgttggcaatttcacatctgagcatcagcaattgctagtgaca
33481 -----+-----+-----+-----+-----+-----+ 33540
gactctagacagaccggttaacaaccgttaaagtagactcgtagtcgttaacgatcactgt

gccctacatctgggactcactttcctgtttggtataaatgtttctggagattagaataag
33541 -----+-----+-----+-----+-----+-----+ 33600
cgggatgtagaccctgagtgaaggacaaaccatatttacaagacctctaattcttattc

ggaagagaagtcgtttttagcatttccgtatctcagttccaaagagggtttaaaaggcacgt
33601 -----+-----+-----+-----+-----+-----+ 33660
ccttctcttcagcaaaatcgtaaaggcatagagtcaaggtttctccaaattttccgtgca
      I10 (-282)
gcaaatgacaaacccacaaaacaaaatcaactgagcaaaaatcaatgctctgcccagag
33661 -----+-----+-----+-----+-----+-----+ 33720
cgtttactgttgggtgttttgttttagttgactcgttttttagttacgagacgggttctc
      I10 (-189)
ggaccatctttaagaagctttaagtgaagtttaccttgaaagttgtaattagaagcttca
33721 -----+-----+-----+-----+-----+-----+ 33780
cctggtagaaattcttcgaaattcacttcaaattggaactttcaacattaatcttcgaagt

ggaagcaagtgcctttatggcagaatgactgatgttactcccaggatctcatggaattgt
33781 -----+-----+-----+-----+-----+-----+ 33840
ccttcgttcacggaataaccgtcttactgactacaatgagggctctagagtaccttaaca
      I10 (-94)
aaaattttatctctgttctgtgtaagtcaacctaaatcaaacagaaatattagtgtttgg
33841 -----+-----+-----+-----+-----+-----+ 33900
ttttaaaatagagacaagacacattcagttggatttagtttgtctttataatcacaaacc
      Exon 11
gtacatcaaaacacctttaacttgtcctttcattttggtttgccttttgacaggatataa
33901 -----+-----+-----+-----+-----+-----+ 33960
catgtagttttgtggaaattgaacaggaaagtaaaaccaaacggaaaactgtcctatatt

      D I I -

tcacagatccatttaagcttgacagaagagcttgacagtatgaagtcacagatgtgtccctg
33961 -----+-----+-----+-----+-----+-----+ 34020
agtgtctaggtaaattcgaacgtcttctcagactgtcatacttcaggtctacacagggac

      T D P F K L A E E S D S M K S R C V P D -

atgctgctggaggctgctgtggcacaaagaaaagctgctaaatctatagccaaccagggg
34021 -----+-----+-----+-----+-----+-----+ 34080
tacgacgacctccgacgacaccgtgtttcttttcgacgatttagatatcggttggtcccc

      A A G G C C G T K K S C *

accacagtagtgggcaagagtgcacatgttttttaacctgcttttcccatagcacaca
34081 -----+-----+-----+-----+-----+-----+ 34140
tggtgtcatcaccgttctcactagacgtacaaaaaattggacgaaaaggggtatcgtgt

gaccataagaacaacaatggggccgggacagtggtcatgcctataatcccagcact
34141 -----+-----+-----+-----+-----+-----+ 34200
ctgggtattctttgtttgtttaccccgcccggtgtcaccgagtagcgatattaggggtcgtga

```

Figure 1 – page 46

```
ttgggagggccgaggcaggcagatcacctgaggtcaggagtttgataccagcctggccaac
34201 -----+-----+-----+-----+-----+-----+ 34260
aacctccgggtccgtccgtctagtggactccagtcctcaaactatggtcggaccggttg

atggtgaaatcctgtctctacaaaaatacaaaaaaattagctgggcatggtggtgcac
34261 -----+-----+-----+-----+-----+-----+ 34320
taccacttttaggacagagatggtttttatgtttttttaatcgaccgtaccaccacgtg

acctatagtctcagctactcgggagggtgaggcaggagaattgcttgaaccaggaagta
34321 -----+-----+-----+-----+-----+-----+ 34380
tggatatcagagtcgatgagccctccgactccgtcctttaacgaacttgggtccttcac

gaggctgcagtgagtaagcatcacgccactgtactccagcctgggcaacagagcaagact
34381 -----+-----+-----+-----+-----+-----+ 34440
ctccgacgtcactcattcgtagtgcggtgacatgaggtcggaccgttgtctcgttctga

ctgtctcaaagcaaaaaaaaaaaaaaaaaaagaaagaaagaaaaaacaacaaatg (SEQ ID NO:1)
34441 -----+-----+-----+-----+-----+-----+ 34500
gacagagttttcgttttttttttttttttttttctttctttctttttggtgtttac (SEQ ID NO:2)
```

Figure 2A – page 1

GAGACAGTGAGTGCGCGCCCTGAGTCGCAGGCCGAGGAGACAGTGAGTGCGCGCCCTGAG
1 -----+-----+-----+-----+-----+-----+ 60
CTCTGTCACTCACGCGCGGGACTCAGCGTCCGGCTCCTCTGTCACTCACGCGCGGGACTC

TCGCAGGCCGAGGAGACATGGCTGCACTTCGTGACGCTGAGATACAGAAGGACGTGCAGA
61 -----+-----+-----+-----+-----+-----+ 120
AGCGTCCGGCTCCTCTGTACCGACGTGAAGCACTGCGACTCTATGTCTTCCTGCACGTCT

M A A L R D A E I Q K D V Q T -

CCTACTACGGGCAGGTGCTGAAGAGATCGGCAGACCTCCAGACCAACGGCTGTGTACCA
121 -----+-----+-----+-----+-----+-----+ 180
GGATGATGCCCGTCCACGACTTCTCTAGCCGTCTGGAGGTCTGGTTGCCGACACAGTGGT

Y Y G Q V L K R S A D L Q T N G C V T T -

CAGCCAGGCCGGTCCCCAAGCACATCCGGAAGCCTTGCAAAATGTACACGAAGAAGTAG
181 -----+-----+-----+-----+-----+-----+ 240
GTCGGTCCGGCCAGGGGTTTCGTGTAGGCCCTTCGGAACGTTTTACATGTGCTTCTTCATC

A R P V P K H I R E A L Q N V H E E V A -

CCCTAAGATATTATGGCTGTGGTCTGGTGATCCCTGAGCATCTAGAAAAGTCTGGATTT
241 -----+-----+-----+-----+-----+-----+ 300
GGGATTCTATAATACCGACACCAGACCACTAGGGACTCGTAGATCTTTTGACGACCTAAA

L R Y Y G C G L V I P E H L E N C W I L -

TGGATCTGGGTAGTGGAAGTGGCAGAGATTGCTATGTACTTAGCCAGCTGGTTGGTGAAA
301 -----+-----+-----+-----+-----+-----+ 360
ACCTAGACCCATCACCTTCACCGTCTCTAACGATACATGAATCGGTCGACCAACCACTTT

D L G S G S G R D C Y V L S Q L V G E K -

AAGGACACGTGACTGGAATAGACATGACCAAAGGCCAGGTGGAAGTGGCTGAAAAGTATC
361 -----+-----+-----+-----+-----+-----+ 420
TTCCTGTGCACTGACCTTATCTGTACTGGTTTCCGGTCCACCTTCACCGACTTTTCATAG

G H V T G I D M T K G Q V E V A E K Y L -

TTGACTATCACATGGAAAAATATGGCTTCCAGGCATCTAATGTGACTTTTTTCCATGGCA
421 -----+-----+-----+-----+-----+-----+ 480
AACTGATAGTGTAACCTTTTTATACCGAAGGTCCGTAGATTAACTGAAAAAAGGTACCGT

D Y H M E K Y G F Q A S N V T F F H G N -

ACATTGAGAAGTTGGCAGAGGCTGGAATCAAGAATGAGAGCCATGATATTGTTGTATCAA
481 -----+-----+-----+-----+-----+-----+ 540
TGTAACCTTTCAACCGTCTCCGACCTTAGTTCTTACTCTCGGTACTATAACAACATAGTT

I E K L A E A G I K N E S H D I V V S N -

Figure 2A – page 2

ACTGTGTTATTAACCTTGTGCCTGATAAACAACAAGTGCTTCAGGAGGCATATCGGGTGC
541 -----+-----+-----+-----+-----+-----+ 600
TGACACAATAATTGGAACACGGACTATTTGTTGTTTCACGAAGTCTCCGTATAGCCCACG
C V I N L V P D K Q Q V L Q E A Y (R) V L -
TGAAGCATGGTGGGGAGTTATATTTTCAGTGACGTCTATACGAGCCTTGAAGTGCAGAAG
601 -----+-----+-----+-----+-----+-----+ 660
ACTTCGTACCACCCCTCAATATAAAGTCACTGCAGATATGCTCGGAAGTTGACGGTCTTC
K H G G E L Y F S D V Y T S L E L P E E -
AAATCAGGACACACAAAGTTTTATGGGGTGAGTGTCTGGGTGGTGCTTTATACTGGAAGG
661 -----+-----+-----+-----+-----+-----+ 720
TTTAGTCCTGTGTGTTTCAAATACCCCACTCACAGACCCACCACGAAATATGACCTTCC
I R T H K V L W G E C L G G A L Y W K E -
AACTTGCTGTCTTGTCTCAAAAAATTGGGTTCTGCCCTCCACGTTTGGTCACTGCCAATC
721 -----+-----+-----+-----+-----+-----+ 780
TTGAACGACAGGAACGAGTTTTTTAAACCAAGACGGGAGGTGCAAACAGTGACGGTTAG
L A V L A Q K I G F C P P R L V T A N L -
TCATTACAATTCAAAACAAGGAAGTGAAGAGTTATCGGTGACTGTCTGTTTTGTTTCTG
781 -----+-----+-----+-----+-----+-----+ 840
AGTAATGTTAAGTTTTGTTTCTTGACCTTTCTCAATAGCCACTGACAGCAAAACAAAGAC
I T I Q N K E L E R V I G D C R F V S A -
CAACATTTTCGCTCTTCAAACACTCTAAGACAGGACCAACCAAGAGATGCCAAGTTATTT
841 -----+-----+-----+-----+-----+-----+ 900
GTTGTAAAGCGGAGAAGTTTGTGAGATTCTGTCTGTTGTTTCTCTACGTTCAATAAA
T F R L F K H S K T G P T K R C Q V I Y -
ACAATGGAGGAATTACAGGACATGAAAAAGAACTAATGTTTGATGCCAATTTTACATTTA
901 -----+-----+-----+-----+-----+-----+ 960
TGTTACCTCCTTAATGTCCTGTACTTTTTCTTGATTACAACTACGGTTAAATGTAAAT
N G G I T G H E K E L (M) F D A N F T F K -
AGGAAGGTGAAATTGTTGAAGTGGATGAAGAAACAGCAGCTATCTTGAAGAATTCAAGAT
961 -----+-----+-----+-----+-----+-----+ 1020
TCCTTCCACTTTAACAACCTTCACCTACTTCTTTGTCGTCGATAGAACTTCTTAAGTTCTA
E G E I V E V D E E (T) A A I L K N S R F -
TTGCTCAAGATTTTCTGATCAGACCAATTGGAGAGAAGTTGCCAACATCTGGAGCTGTTC
1021 -----+-----+-----+-----+-----+-----+ 1080
AACGAGTTCTAAAGACTAGTCTGGTTAACCTCTCTTCAACGTTGTAGACCTCGACAAG
A Q D F L I R P I G E K L P T S G G C S -

Figure 2A – page 3

```

TGCTTTGGAGTTAAAGGATATAATCACAGATCCATTTAAGCTTGCAGAAGAGGTCTGACA
1081 -----+-----+-----+-----+-----+-----+ 1140
ACGAAACCTCAATTTCTATATTAGTGTCTAGGTAAATTGGAACGTCTTCTCCAGACTGT

  A L E L K D I I T D P F K L A E E S D S -

GTATGAAGTCCAGATGTGTCCCTGATGCTGCTGGAGGCTGCTGTGGCACAAGAAAAGCT
1141 -----+-----+-----+-----+-----+-----+ 1200
CATACTTCAGGTCTACACAGGGACTACGACGACCTCCGACGACACCGTGTTTCTTTTCGA

  M K S R C V P D A A G G C C G T K K S C -

GCTAAATCTATAGCCAACCAGGGGACACAGTAGTGGGCAAGAGTGATCTGCATGTTTTTT
1201 -----+-----+-----+-----+-----+-----+ 1260
CGATTTAGATATCGGTTGGTCCCCTGGTGTATCATCCCCGTTCTACTAGACGTACAAAAAA

*

TAACCTGCTTTTTCCCATAGCACAGACCATAAGAAACAACAAATGAGCCACTGCGCCCGG
1261 -----+-----+-----+-----+-----+-----+ 1320
ATTGGACGAAAAGGGGTATCGTGTCTGGTATTCTTTGTTGTTTACTCGGTGACGCGGGCC

CCATAAATGAATTATTTTTAAGAGGCATTGATTAAAGATTCACAGCAAATCACTAGTTAA
1321 -----+-----+-----+-----+-----+-----+ 1380
GGTATTTACTTAATAAAAAATTCTCCGTAATAATTCTAAGTGTCGTTTAGTGATCAATT

GCAGATTTTTTTTCTATTTCTACTTCAAAGTTCTGGTGCCACATAGTGGTCAGAAATGG
1381 -----+-----+-----+-----+-----+-----+ 1440
CGTCTAAAAAAAAGATAAAGGATGAAGTTTCAAGACCACGGTGTATCACCAGTCTTTACC

AACAGAGAAGCTGTCTTAAGCCTTGTTCAAGAAGCAGGAAAGGCATCAGAAGAAGTAACA
1441 -----+-----+-----+-----+-----+-----+ 1500
TTGTCTCTTCGACAGAATTTCGAACAAGTTCTTCGTCTTTCCGTAGTCTTCTTCATTGT

GTTGGCAGAGGGTCTCAGGAAAAACATCTTCCTTCTGATCTTTTGCATAGCACCTTTTGG
1501 -----+-----+-----+-----+-----+-----+ 1560
CAACCGTCTCCCAGAGTCCTTTTTGTAGAAGGAAGACTAGAAAACGTATCGTGGAAGAAC

AATTTTCATCATGTTTGCTTATTAAACAAAGCTCCTACTGCCATCATACTAATCATGCAA
1561 -----+-----+-----+-----+-----+-----+ 1620
TTAAAAGTAGTACAAACGAATAATTTGTTTCGAGGATGACGGTAGTATGATTAGTACGTT

AAAGATTGCCAAATCATGTTTGGTAGGAGGACTTTTGAGGTAGCTTTTGAACAAATGTTT
1621 -----+-----+-----+-----+-----+-----+ 1680
TTTCTAACGGTTTAGTACAAACCATCCTCCTGAAACTCCATCGAAACTTGTTTACAAA

TTTTCTTTTTTCTTTTTTTTTTGCAATAAAGAAAACAAATTAATCATAAAAAAAA (SEQ ID NO:3)
1681 -----+-----+-----+-----+-----+-----+ 1735
AAAAGAAAAAAGAAAAAAAACGTTATTTCTTTTGTTTAATTAGTATTTTTTTTTT (SEQ ID NO:4)

```

Figure 2B

MAALRDAEIQKDVQTYYGQVLKRSADLQTNGCVTTARPVPKHIREALQNVHEEVALRY
YGCGLVIPEHLENCWILDLGSGSGRDCYVLSQLVGEKGHVTGIDMTKGQVEVAEKYLD
YHMEKYGFQASNVTFIHGYIEKLGEAGIKNESHDIVVSNCVINLVDPKQQVLQEAYRVL
KHGGELYFSDVYTSLELPEEIRTHKVLWGECLGGALYWKELAVLAQKIGFCPPRLVTAN
LITIQNKELERVIGDCRFVSATFRLFKHSGTGPTKRCQVIYNGGITGHEKELMFDANFTFK
EGEIVEVDEETAAILKNSRFAQDFLIRPIGEKLPTSGGCSALELKDIITDPFKLAEESDSMK
SRCVPDAAGGCCGTTKSC (SEQ ID NO:5)

Figure 3

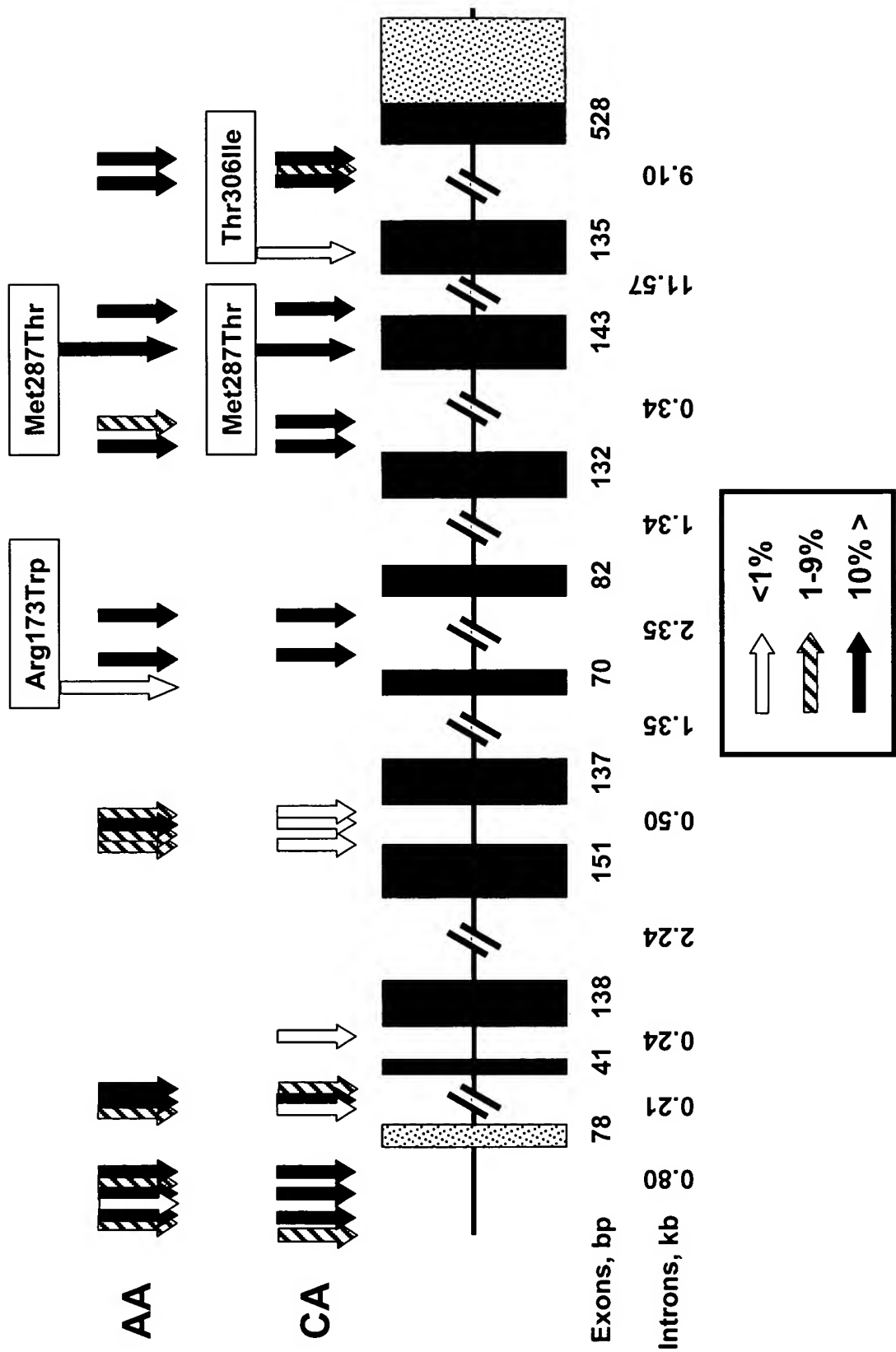


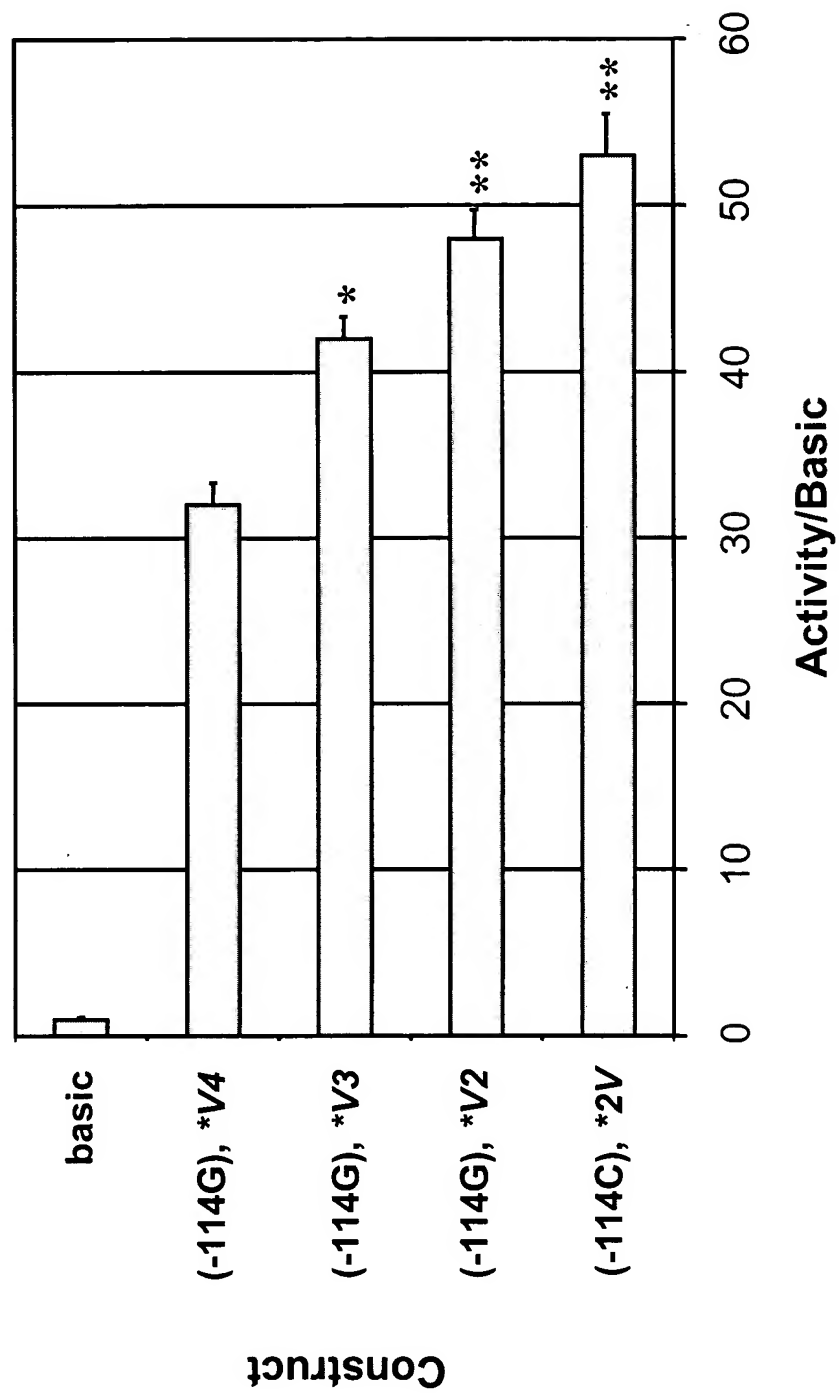
Figure 4A

Figure 4B